

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN DIEGO REGION
ORDER NO. R9-2002-0001
NPDES NO. CAS0108740**

**WASTE DISCHARGE REQUIREMENTS
FOR DISCHARGES OF URBAN RUNOFF FROM
THE MUNICIPAL SEPARATE STORM SEWER SYSTEMS (MS4s)
DRAINING THE WATERSHEDS OF THE
COUNTY OF ORANGE,
THE INCORPORATED CITIES OF ORANGE COUNTY,
AND THE
ORANGE COUNTY FLOOD CONTROL DISTRICT
WITHIN THE SAN DIEGO REGION**

The California Regional Water Quality Control Board, San Diego Region (hereinafter SDRWQCB), finds that:

1. **COPERMITTEES ARE DISCHARGERS OF URBAN RUNOFF:** Each of the persons in Table 1 below, hereinafter called Copermittees or dischargers, owns or operates a municipal separate storm sewer system (MS4), through which it discharges urban runoff into waters of the United States within the San Diego Region. The Copermittees serve a population of approximately 500,000 people within the San Diego Region. The MS4s operated by the Copermittees fall into one or more of the following categories: (1) a medium or large MS4 that services a population of greater than 100,000 or 250,000 respectively; or (2) a small MS4 that is "interrelated" to a medium or large MS4; or (3) an MS4 which contributes to a violation of a water quality standard; or (4) an MS4 which is a significant contributor of pollutants to waters of the United States.

Table 1. Municipal Copermittees

1. City of Aliso Viejo	8. City of Mission Viejo
2. City of Dana Point	9. City of Rancho Santa Margarita
3. City of Laguna Beach	10. City of San Clemente
4. City of Lake Forest	11. City of San Juan Capistrano
5. City of Laguna Hills	12. County of Orange
6. City of Laguna Niguel	13. Orange County Flood Control District
7. City of Laguna Woods	

2. **URBAN RUNOFF CONTAINS "WASTE" AND IS A "POINT SOURCE DISCHARGE OF POLLUTANTS":** Urban runoff contains waste, as defined in the California Water Code, and pollutants that adversely affect the quality of the waters of the State. The discharge of urban runoff from an MS4 is a "discharge of pollutants from a point source" into waters of the United States as defined in the Clean Water Act.
3. **URBAN DEVELOPMENT AND RUNOFF CAUSES RECEIVING WATER DEGRADATION:** Urban runoff discharges from MS4s are a leading cause of receiving water quality impairment in the San Diego Region and throughout the United States. As runoff flows over urban areas, it picks up harmful pollutants such as pathogens, sediment (resulting from human activities), fertilizers, pesticides, heavy metals, and petroleum products. These pollutants often become dissolved or suspended in urban runoff and are conveyed and discharged to receiving waters, such as streams, lakes, lagoons, bays, and the ocean without treatment. Once in receiving waters, these pollutants harm aquatic life primarily through toxicity and habitat degradation. Furthermore, the pollutants can enter the food chain and may eventually enter the tissues of fish and humans.

There is a strong direct correlation between "urbanization" and "impacts to receiving water quality". In general, the more heavily developed the area, the greater the impacts to receiving waters from urban runoff.

These impacts especially threaten environmentally sensitive areas (such as Clean Water Act section 303(d) impaired water bodies, areas designated as Areas of Special Biological Significance, water bodies designated with the RARE beneficial use, riparian or estuarine areas designated by the Copermittees as Critical Aquatic Resources (CARS), and regional parks and preserves containing receiving waters within the Cities and County of Orange). Such environmentally sensitive areas have a much lower capacity to withstand pollutant shocks than might be acceptable in the general circumstance. In essence, urban development that is ordinarily insignificant in its impact on the environment may, in a particularly sensitive environment, be significant.

- 4. URBAN DEVELOPMENT INCREASES POLLUTANT LOAD, VOLUME, AND VELOCITY OF RUNOFF:** During urban development two important changes occur. First, natural vegetated pervious ground cover is converted to impervious surfaces such as paved highways, streets, rooftops, and parking lots. Natural vegetated soil can both absorb rainwater and remove pollutants providing a very effective natural purification process. Because pavement and concrete can neither absorb water nor remove pollutants, the natural purification characteristics of the land are lost.

Secondly, urban development creates new pollution sources as human population density increases and brings with it proportionately higher levels of car emissions, car maintenance wastes, municipal sewage, pesticides, household hazardous wastes, pet wastes, trash, etc. which can either be washed or directly dumped into the MS4.

As a result of these two changes, the runoff leaving the developed urban area is significantly greater in volume, velocity and pollutant load than the pre-development runoff from the same area.

The significance of the impacts of urban development on receiving waters is determined by the scope of the project, such as the size of the project, the project land-use type, etc. Large projects (such as commercial developments greater than 100,000 square feet, home subdivisions greater than 10 units, and streets, roads, highways, and freeways) generally have large amounts of impervious surface, and therefore have greater potential to significantly impact receiving waters by increasing erosion (through increased peak flow rates, flow velocities, flow volumes, and flow durations) than smaller projects. Projects of particular land use types also have greater potential to significantly impact receiving waters due to the presence of typically large amounts of pollutants on site or an increased potential for pollutants to move off site (such as automotive repair shops, restaurants, parking lots, streets, roads, highways, and freeways, hillside development, and retail gasoline outlets).

- 5. WATER QUALITY DEGRADATION INCREASES WITH PERCENT IMPERVIOUSNESS:** The increased volume and velocity of runoff from developed urban areas greatly accelerates the erosion of downstream natural channels. Numerous studies have demonstrated a direct correlation between the degree of imperviousness of an area and the degradation of its receiving water quality. Significant declines in the biological integrity and physical habitat of streams and other receiving waters have been found to occur with as little as a 10% conversion from natural to impervious surfaces. (Developments of medium density single family homes range between 25 to 60% impervious). Today "% impervious coverage" is believed to be a reliable indicator and predictor of the water quality degradation expected from planned new development.
- 6. URBAN RUNOFF IS A HUMAN HEALTH THREAT:** Urban runoff contains pollutants, which threaten human health. Human illnesses have been clearly linked to recreating (i.e., swimming, surfing, etc.) near storm drains flowing to coastal beach waters. Such flows from urban areas often result in the posting or closure of local beaches.

Pollutants transported to receiving waters by urban runoff can also enter the food chain. Once in the food chain they can "bioaccumulate" in the tissues of invertebrates (e.g., mussels, oysters, and

lobsters) and fish which may be eventually consumed by humans. Furthermore, some pollutants are also known to “biomagnify”. This phenomenon can result in pollutant concentrations in the body fat of top predators that are millions of times greater than the concentrations in the tissues of their lower trophic (food chain) counterparts or in ambient waters.

7. **POLLUTANT TYPES:** The most common categories of pollutants in urban runoff include total suspended solids, sediment (due to anthropogenic activities); pathogens (e.g., bacteria, viruses, protozoa); heavy metals (e.g., copper, lead, zinc and cadmium); petroleum products and polynuclear aromatic hydrocarbons; synthetic organics (e.g., pesticides, herbicides, and PCBs); nutrients (e.g., nitrogen and phosphorus fertilizers), oxygen-demanding substances (decaying vegetation, animal waste), and trash.
8. **URBAN STREAMS AS AN MS4 COMPONENT:** Historic and current development make use of natural drainage patterns and features as conveyances for urban runoff. Urban streams used in this manner are both MS4s and receiving waters.
9. **URBAN RUNOFF CAUSES BENEFICIAL USE IMPAIRMENT:** Individually and in combination, the discharge of pollutants and increased flows from MS4s can cause or threaten to cause a condition of pollution (i.e., unreasonable impairment of water quality for designated beneficial uses), contamination, or nuisance. The discharge of pollutants from MS4s can cause the concentration of pollutants to exceed applicable receiving water quality objectives and impair or threaten to impair designated beneficial uses. The discharge of urban runoff may also impact the physical habitat of receiving waters. Significant stream channel incision and bank erosion is a feature common in the Aliso Creek watershed and other drainages in Orange County and may be caused in part by changes in peak flow rates and volumes resulting from urban development. Preliminary results of the Ambient Bioassessment Monitoring Program in Aliso Creek and San Juan Creek in 1998 and 1999 indicate impacts to the benthic community that may be the result of water quality and habitat degradation.
10. **COPERMITTEES IMPLEMENT URBAN RUNOFF MANAGEMENT PROGRAMS (URMPs):** Copermittee implementation of Urban Runoff Management Programs (URMPs) designed to reduce discharges of pollutants and flow into and from MS4s to the maximum extent practicable (MEP) can protect receiving water quality by promoting attainment of water quality objectives necessary to support designated beneficial uses. To be most effective, URMPs must contain both structural and non-structural best management practices (BMPs).
11. **BEST MANAGEMENT PRACTICES (BMPs):** Pollutants can be effectively reduced in urban runoff by the application of a combination of pollution prevention, source control, and treatment control BMPs. Source control BMPs (both structural and non-structural) minimize the contact between pollutants and flows (e.g., rerouting run-on around pollutant sources or keeping pollutants on-site and out of receiving waters). Treatment control (or structural) BMPs remove pollutants from urban runoff. Where feasible, use of BMPs that utilize natural processes should be assessed. These types of BMPs, such as grassy swales and constructed wetlands, can frequently be as effective as less natural BMPs, while providing additional benefits such as aesthetics and habitat.
12. **POLLUTION PREVENTION:** Pollution prevention, the initial reduction/elimination of pollutant generation at its source, is the best “first line of defense” for Copermittees and should be used in conjunction with source control and treatment control BMPs. Pollutants that are never generated do not have to be controlled or treated. Encouragement during planning processes of the use of pollution prevention BMPs can be an effective means for pollution prevention BMPs to be implemented, through such methods as education, landscaping, etc.
13. **RECEIVING WATER LIMITATIONS:** Compliance with receiving water limits based on applicable water quality objectives is necessary to ensure that MS4 discharges will not cause or contribute to violations of water quality objectives and the creation of conditions of pollution.

14. **RECEIVING WATER LIMITATION COMPLIANCE STRATEGY:** Implementation of BMPs cannot ensure attainment of receiving water quality objectives under all circumstances; some BMPs may not prove to be as effective as anticipated. An iterative process of BMP development, implementation, monitoring, and assessment is necessary to assure that an Urban Runoff Management Program is sufficiently comprehensive and effective to achieve compliance with receiving water quality objectives.
15. **COPERMITTEES' RESPONSIBILITY FOR ILLICIT DISCHARGES FROM THIRD PARTIES:** As operators of MS4s, the Copermittees cannot passively receive and discharge pollutants from third parties. By providing free and open access to an MS4 that conveys discharges to the waters of the United States, the operator of an MS4 that does not prohibit and/or control discharges into its system essentially accepts responsibility for those discharges. These discharges may cause or contribute to a condition of contamination or exceedances of receiving water quality objectives.
16. **COPERMITTEES' RESPONSIBILITY BASED ON LAND USE AUTHORITY:** Utilizing their land use authority, Copermittees authorize and realize benefits from the urban development which generates the pollutants and runoff that impair receiving waters. Since the Copermittees utilize their legal authority to authorize urbanization, they must also exercise their legal authority to ensure that the resulting increased pollutant loads and flows do not further degrade receiving waters.
17. **THREE PHASES OF URBAN DEVELOPMENT:** Urban development has three major phases: (1) land use planning for new development; (2) construction; and (3) the "use" or existing development phase. Because the Copermittees authorize, permit, and realize benefits from each of these phases, and because each phase has a profound impact on water quality, the Copermittees have commensurate responsibilities to protect water quality during each phase. In other words, Copermittees are held responsible for the short and long-term water quality consequences of their land use planning, construction, and existing development decisions.
18. **PLANNING PHASE FOR NEW DEVELOPMENT:** Because land use planning and zoning is where urban development is conceived, it is the phase in which the greatest and most cost-effective opportunities to protect water quality exists. When a Copermittee incorporates policies and principles designed to safeguard water resources into its General Plan and development project approval processes, it has taken a far-reaching step towards the preservation of local water resources for future generations.
19. **CONSTRUCTION PHASE:** Construction activities are a significant cause of receiving water impairment. Siltation is currently the largest cause of river impairment in the United States. Sediment runoff rates from construction sites greatly exceed natural erosion rates of undisturbed lands causing siltation and impairment of receiving waters. In addition to requiring implementation of the full range of BMPs, an effective construction runoff program must include local plan review, permit conditions, field inspections, and enforcement.
20. **EXISTING DEVELOPMENT:** The Copermittees' wet weather monitoring results collected during the past decade, as well as volumes of other references in the literature today, confirm substantial pollutant loads to receiving waters in runoff from existing urban development. Implementation of jurisdictional and watershed URMPs, which include extensive controls on existing development, can reduce pollutant loadings over the long term.
21. **CHANGES NEEDED:** Because the urbanization process is a direct and leading cause of water quality degradation in this Region, fundamental changes to existing policies and practices about urban development are needed if the beneficial uses of the San Diego Region's natural water resources are to be protected.
22. **DUAL REGULATION OF INDUSTRIAL AND CONSTRUCTION SITES:** Discharges of runoff from industrial and construction sites in this Region are subject to dual (state and local) regulation. (1) All industries and construction sites are subject to the local permits, plans, and ordinances of the municipal jurisdiction in which it is located. Pursuant to this Order, local (storm water, grading,

construction, and use) permits, plans, and ordinances must (a) prohibit the discharge of pollutants and non-storm water into the MS4; and (b) require the routine use of BMPs to reduce pollutants in site runoff. (2) Many industries and construction sites are also subject to regulation under the statewide General Industrial Storm Water Permit or statewide General Construction Storm Water Permit¹. These statewide general permits are adopted by the State Water Resources Control Board and enforced by the nine Regional Water Quality Control Boards throughout California. Like the Copermittees' local permits and ordinances, the statewide General Industrial and Construction Permits also (a) prohibit the discharge of pollutants and non-storm water; and (b) require the routine use of BMPs to reduce pollutants in site runoff.

Recognizing that both authorities share a common goal, the federal storm water regulations at 40 CFR 122.26 (and its preamble) call for the dual system to ensure the most effective oversight of industrial and construction site discharges. Under this dual system, each municipal Copermittee is responsible for enforcing its local permits, plans, and ordinances within its jurisdiction. Similarly, the SDRWQCB is responsible for enforcing both statewide general permits and this Order within the San Diego Region.

23. **EDUCATION:** Education is the foundation of every effective URMP and the basis for changes in behavior at a societal level. Education of municipal planning, inspection, and maintenance department staffs is especially critical to ensure that in-house staffs understand how their activities impact water quality, how to accomplish their jobs while protecting water quality, and their specific roles and responsibilities for compliance with this Order. Public education, designed to target various urban land users and other audiences, is also essential to inform the public of how individual actions impact receiving water quality and how these impacts can be minimized. The proposed Drainage Area Management Plan (DAMP) that was submitted to the SDRWQCB by the Orange County Copermittees in September 2000 has a strong emphasis on education measures.
24. **ENFORCING LOCAL LEGAL AUTHORITY:** Enforcement of local urban runoff related ordinances, permits, and plans is an essential component of every URMP and is specifically required in the federal storm water regulations and this Order. Routine inspections provide an effective means by which Copermittees can evaluate compliance with their permits and ordinances. Inspections are especially important at high-risk areas for pollutant discharges such as industrial and construction sites.
- When industrial or construction site discharges occur in violation of local permits and ordinances, the SDRWQCB looks to the municipality that has authorized the discharge for appropriate actions (typically education followed by enforcement where education has been unsuccessful). Each Copermittee must also provide enforcement against illegal discharges from other land uses it has authorized, such as commercial and residential developments.
25. **PUBLIC PARTICIPATION:** Public participation during the URMP development process is necessary to ensure that all stakeholder interests and a variety of creative solutions are considered.
26. **TOXICITY:** Urban runoff discharges from MS4s often contain pollutants that cause toxicity, (i.e., adverse responses of organisms to chemicals or physical agents ranging from mortality to physiological responses such as impaired reproduction or growth anomalies). The water quality objectives for toxicity provided in the Water Quality Control Plan, San Diego Basin, Region 9, (Basin Plan), state in part *"All waters shall be free of toxic substances in concentrations that are toxic to, or that produce detrimental physiological responses in human, plant, animal, or aquatic life....The survival of aquatic life in surface waters subjected to a waste discharge or other controllable water quality factors, shall not be less than*

¹ The "statewide General Industrial Storm Water Permit" refers to State Water Resources Control Board Water Quality Order No. 97-03-DWQ National Pollutant Discharge Elimination System General Permit No. CAS000001, Waste Discharge Requirements for Discharges of Storm Water Associated with Industrial Activities Excluding Construction Activities. The "statewide General Construction Storm Water Permit" refers to State Water Resources Control Board Order No. 99-08-DWQ National Pollutant Discharge Elimination System General Permit No. CAS000002, Waste Discharge Requirements for Discharges of Storm Water Runoff Associated with Construction Activity.

that for the same water body in areas unaffected by the waste discharge...” Urban runoff discharges from MS4s are considered toxic when (1) the toxic effect observed in an acute toxicity test exceeds zero Toxic Units Acute (TU_a=0); or (2) the toxic effect observed in a chronic toxicity test exceeds one Toxic Unit Chronic (TU_c=1).

27. FOCUS ON MAN-MADE POLLUTANTS AND FLOWS: The focus of this Order is on the control of urban runoff pollutants and flows, which are either generated or accelerated by human activities. This Order is not meant to control background or naturally occurring pollutants and flows.

28. COMMON WATERSHEDS AND CWA SECTION 303(d) IMPAIRED WATERS: The Copermittees discharge urban runoff into lakes, streams, creeks, bays, the Pacific Ocean, and tributaries thereto within six hydrologic areas within Orange County as shown in Table 2 below. During its downstream course, urban runoff is conveyed through lined and unlined (natural, manmade, and partially modified) channels, all of which are defined as components of the Copermittees’ MS4.

Some of the receiving water bodies listed below, which receive or convey urban runoff discharges, have been designated as impaired by the SDRWQCB and USEPA in 1998 pursuant to Clean Water Act section 303(d). Additional water bodies may be listed during the term of this Order pursuant to Clean Water Act section 303(d) as impaired as more information is collected and analyzed.

Table 2. Watershed Management Areas (WMAs)

SDRWQCB WATERSHED MANAGEMENT AREA (WMA)	HYDROLOGIC UNIT(S)	MAJOR SURFACE WATER BODIES	303(d) POLLUTANT(S) OF CONCERN OR WATER QUALITY EFFECT	COPERMITTEES
San Juan Creek WMA	San Juan Hydrologic Unit (901.00)	Moro Canyon Creek Laguna Canyon Creek Aliso Creek English Canyon Creek Sulphur Creek Wood Canyon Creek Salt Creek San Juan Creek Bell Canyon Creek Canada Gobernadora Arroyo Trabuco Oso Creek Prima Deshecha Canada Segunda Deshecha Canada Pacific Ocean	1. Coliform Bacteria	1. County of Orange 2. City of Aliso Viejo 3. City of Dana Point 4. City of Laguna Beach 5. City of Lake Forest 6. City of Laguna Hills 7. City of Laguna Niguel 8. City of Laguna Woods 9. City of Mission Viejo 10. City of Rancho Santa Margarita 11. City of San Juan Capistrano 12. City of San Clemente 13. Orange County Flood Control District

29. CUMULATIVE POLLUTANT LOAD CONTRIBUTIONS: Because they are interconnected, each MS4 within a watershed contributes to the cumulative pollutant loading, volume, and velocity of urban runoff and the ensuing degradation of downstream receiving water bodies. Accordingly, inland MS4s contribute to coastal impairments.

30. LAND USE PLANNING ON A WATERSHED SCALE: Because urban runoff does not recognize political boundaries, “watershed-based” land use planning (pursued collaboratively by neighboring local governments) can greatly enhance the protection of shared natural water resources. Such planning enables multiple jurisdictions to work together to plan for both development and resource conservation that can be environmentally as well as economically sustainable.

31. INTERGOVERNMENTAL COORDINATION: Within their common watersheds it is essential for the Copermittees to coordinate their water quality protection and land use planning activities to achieve the greatest protection of receiving water bodies. Copermittee coordination with other watershed stakeholders, especially CALTRANS and the Department of Defense is also critical.

Continued implementation of the management structure developed under previous permits, within which the Copermittees subject to this Order, will fund and coordinate those aspects of their joint obligations will promote implementation of Urban Runoff Management Programs on a watershed and regional basis in the most cost effective manner.

32. **WASTE REMOVAL:** Waste and pollutants which are deposited and accumulate in MS4 drainage structures will be discharged from these structures to waters of the United States unless they are removed. These discharges may cause or contribute to, or threaten to cause or contribute to, a condition of pollution in receiving waters. Once removed, such accumulated wastes must be characterized and lawfully disposed.
33. **CHANGING THE STORM WATER MANAGEMENT APPROACH:** In contrast to the conventional "conveyance" approach, a more natural approach to storm water management seeks to filter and infiltrate runoff by allowing it to flow slowly over permeable vegetated surfaces. By "preserving and restoring the natural hydrologic cycle", filtration and infiltration can greatly reduce the volume/peak rate, velocity, and pollutant loads of urban runoff. The greatest opportunities for changing from a "conveyance" to a more natural management approach occur during the land use planning and zoning processes and when new development projects are under early design.
34. **INFILTRATION AND POTENTIAL GROUNDWATER CONTAMINATION:** Any drainage feature that infiltrates runoff poses some risk of potential groundwater contamination. Although dependent on several factors, the risks typically associated with properly managed infiltration of runoff (especially from residential land use areas) are not significant. The risks associated with infiltration can be managed by many techniques, including (1) designing landscape drainage features that promote infiltration of runoff, but do not "inject" runoff (injection bypasses the natural processes of filtering and transformation that occur in the soil); (2) taking reasonable steps to prevent the illegal disposal of wastes; and (3) ensuring that each drainage feature is adequately maintained in perpetuity. Minimum conditions needed to protect groundwater are specified in section F.1.b. of this Order.
35. **VECTOR CONTROL:** Certain BMPs implemented or required by municipalities for urban runoff management may create a habitat for vectors (e.g. mosquitoes and rodents) if not properly designed or maintained. Close collaboration and cooperative effort between municipalities and local vector control agencies and the State Department of Health Services during the development and implementation of the Urban Runoff Management Programs is necessary to minimize nuisances and public health impacts resulting from vector breeding.
36. **LEGAL AUTHORITY:** This Order is based on the federal Clean Water Act, the Porter-Cologne Water Quality Control Act (Division 7 of the Water Code, commencing with Section 13000), applicable state and federal regulations, all applicable provisions of statewide Water Quality Control Plans and Policies adopted by the State Water Resources Control Board, the Regional Water Quality Control Plan (Basin Plan) adopted by the Regional Board, the California Toxics Rule, and the California Toxics Rule Implementation Plan.
37. **TOTAL MAXIMUM DAILY LOADS (TMDLs):** 40 CFR 122.44 (d)(vii)(B) requires that NPDES permits contain effluent limitations that are consistent with waste load allocations developed under a TMDL. Several TMDLs are being developed in the San Diego Region for impaired water bodies that receive Copermittees' discharge. Once these TMDLs are approved by the SDRWQCB and USEPA, Copermittees' discharge of urban runoff into an impaired water body will be subject to load allocations established by the TMDLs. This Order may be revised by the Regional Board to implement the TMDL waste load allocations for specific water bodies within the Orange County watersheds.
38. **ANTIDegradation:** Conscientious implementation of URMPs that satisfy the requirements contained in this Order will reduce the likelihood that discharges from MS4s will cause or contribute to unreasonable degradation of the quality of receiving waters. Therefore, this Order is in

conformance with SWRCB Resolution No. 68-16 and the federal antidegradation policy described in 40 CFR 131.12.

39. **CEQA:** The issuance of waste discharge requirements for the discharge of urban runoff from MS4s to waters of the United States is exempt from the requirement for preparation of environmental documents under the California Environmental Quality Act (CEQA) (Public Resources Code, Division 13, Chapter 3, § 21000 et seq.) in accordance with the CWC § 13389.
40. **COMMON INTEREST DEVELOPMENTS AND HOMEOWNERS ASSOCIATIONS:** Common interest developments occur within the jurisdiction of the Copermittees. Commonly owned areas can include those used to convey urban runoff. State Law (Civil code 1350-1376) requires that an association be established to manage the commonly owned areas. Urban runoff from storm water conveyance systems within common interest developments is discharged to receiving waters and/or MS4s. This runoff is expected to have water quality and quantity characteristics similar to runoff from areas of similar land use and drainage area.
41. **REPORT OF WASTE DISCHARGE:** In September 2000, the Orange County Copermittees submitted a Report of Waste Discharge and a proposed Drainage Area Management Plan (DAMP) for 2001-2006 to the SDRWQCB.
42. **PUBLIC NOTICE:** The SDRWQCB has notified the Copermittees, all known interested parties, and the public of its intent to consider adoption of an Order prescribing waste discharge requirements that would serve to renew an NPDES permit for the existing discharge of urban runoff.
43. **PUBLIC HEARING:** The SDRWQCB has, at a public meeting on January 9, 2002, held a public hearing and heard and considered all comments pertaining to the terms and conditions of this Order.

IT IS HEREBY ORDERED that the Copermittees, in order to meet the provisions contained in Division 7 of the California Water Code and regulations adopted thereunder, and the provisions of the Clean Water Act and regulations adopted thereunder, shall each comply with the following:

A. PROHIBITIONS -- DISCHARGES

1. Discharges into and from MS4s in a manner causing, or threatening to cause, a condition of pollution, contamination, or nuisance (as defined in CWC § 13050), in waters of the state are prohibited.
2. Discharges from MS4s that cause or contribute to exceedances of receiving water quality objectives for surface water or groundwater are prohibited.
3. Discharges from MS4s containing pollutants which have not been reduced to the maximum extent practicable (MEP) are prohibited.
4. In addition to the above prohibitions, discharges from MS4s are subject to all Basin Plan prohibitions cited in **Attachment A** to this Order.

B. PROHIBITIONS -- NON-STORM WATER DISCHARGES

1. Each Copermittee shall effectively prohibit **all** types of non-storm water discharges into its Municipal Separate Storm Sewer System (MS4) unless such discharges are either authorized by a separate NPDES permit; or not prohibited in accordance with B.2. and B.3. below.
2. Pursuant to 40 CFR 122.26(d)(2)(iv)(B)(1), the following categories of non-storm water discharges need only be prohibited from entering an MS4 if such categories of discharges are identified by the Copermittee as a significant source of pollutants to waters of the United States:

- a. Diverted stream flows;
 - b. Rising ground waters;
 - c. Uncontaminated ground water infiltration [as defined at 40 CFR 35.2005(20)] to MS4s;
 - d. Uncontaminated pumped ground water;
 - e. Foundation drains;
 - f. Springs;
 - g. Water from crawl space pumps;
 - h. Footing drains;
 - i. Air conditioning condensation;
 - j. Flows from riparian habitats and wetlands;
 - k. Water line flushing;
 - l. Landscape irrigation;
 - m. Discharges from potable water sources other than water main breaks;
 - n. Irrigation water;
 - o. Lawn watering;
 - p. Individual residential car washing; and
 - q. Dechlorinated swimming pool discharges.
3. When a discharge category above is identified as a significant source of pollutants to waters of the United States, the Copermittee shall either:
- a. Prohibit the discharge category from entering its MS4; **OR**
 - b. Not prohibit the discharge category and implement, or require the responsible party(ies) to implement, BMPs which will reduce pollutants to the MEP; **AND**
 - c. For each discharge category not prohibited, the Copermittee shall submit the following information to the SDRWQCB within **365 days** of adoption of this Order:
 - (1) The non-storm water discharge category listed above which the Copermittee elects not to prohibit; and
 - (2) The BMP(s) for each discharge category listed above which the Copermittee will implement, or require the responsible party(ies) to implement, to prevent or reduce pollutants to the MEP.
4. **Fire Fighting Flows:** Emergency and non-emergency fire fighting flows need not be prohibited. However, where applicable, when not interfering with health and safety issues, BMPs for non-emergency fire fighting flows are encouraged.
5. **Dry Weather Monitoring and Non-Storm Water Discharges:** Each Copermittee shall examine all dry weather monitoring results collected in accordance with section F.5. and Attachment E of this Order to identify water quality problems which may be the result of any non-prohibited discharge category(ies) identified above in Non-Storm Water Discharges to MS4s Prohibition B.2. Follow-up investigations shall be conducted as necessary to identify and control any non-prohibited discharge category(ies) listed above.

C. RECEIVING WATER LIMITATIONS

1. Discharges from MS4s that cause or contribute to the violation of water quality standards (designated beneficial uses and water quality objectives developed to protect beneficial uses) are prohibited.
2. Each Copermittee shall comply with Part C.1., Part A.2, and Part A.4 as it applies to Prohibition 5 in Attachment A of this Order through timely implementation of control measures and other actions to

reduce pollutants in urban runoff discharges in accordance with the Jurisdictional Urban Runoff Management Program (Jurisdictional URMP) and other requirements of this Order including any modifications. The Jurisdictional URMP shall be designed to achieve compliance with Part C.1., Part A.2, and Part A.4 as it applies to Prohibition 5 in Attachment A of this Order. If exceedance(s) of water quality standards persist notwithstanding implementation of the URMP and other requirements of this Order, the Copermittee shall assure compliance with Part C.1., Part A.2, and Part A.4 as it applies to Prohibition 5 in Attachment A of this Order by complying with the following procedure:

- a. Upon a determination by either the Copermittee or the SDRWQCB that MS4 discharges are causing or contributing to an exceedance of an applicable water quality standard, the Copermittee shall promptly notify and thereafter submit a report to the SDRWQCB that describes BMPs that are currently being implemented and additional BMPs that will be implemented to prevent or reduce any pollutants that are causing or contributing to the exceedance of water quality standards. The report may be incorporated in the annual update to the Jurisdictional URMP unless the SDRWQCB directs an earlier submittal. The report shall include an implementation schedule. The SDRWQCB may require modifications to the report;
- b. Submit any modifications to the report required by the SDRWQCB within 30 days of notification;
- c. Within 30 days following approval of the report described above by the SDRWQCB, the Copermittee shall revise its Jurisdictional URMP and monitoring program to incorporate the approved modified BMPs that have been and will be implemented, the implementation schedule, and any additional monitoring required;
- d. Implement the revised Jurisdictional URMP and monitoring program in accordance with the approved schedule.

So long as the Copermittee has complied with the procedures set forth above and are implementing the revised Jurisdictional URMP, the Copermittee does not have to repeat the same procedure for continuing or recurring exceedances of the same receiving water limitations unless directed by the SDRWQCB to do so.

3. Nothing in this section shall prevent the SDRWQCB from enforcing any provision of this Order while the Copermittee prepares and implements the above report.

D. LEGAL AUTHORITY

1. Each Copermittee shall establish, maintain, and enforce adequate legal authority to control pollutant discharges **into** and **from** its MS4 through ordinance, statute, permit, contract or similar means. This legal authority must, at a minimum, authorize the Copermittee to:
 - a. Control the contribution of pollutants in discharges of runoff associated with industrial and construction activity **to** its MS4 and control the quality of runoff **from** industrial and construction sites. This requirement applies both to industrial and construction sites that have coverage under the statewide general industrial or construction storm water permits, as well as to those sites that do not. Grading ordinances shall be upgraded and enforced as necessary to comply with this Order.
 - b. Prohibit **all** identified illicit discharges not otherwise allowed pursuant to section B.2 including but not limited to:
 - (1) Sewage;

- (2) Discharges of wash water resulting from the hosing or cleaning of gas stations, auto repair garages, or other types of automotive services facilities;
 - (3) Discharges resulting from the cleaning, repair, or maintenance of any type of equipment, machinery, or facility including motor vehicles, cement-related equipment, and port-a-potty servicing, etc.;
 - (4) Discharges of wash water from mobile operations such as mobile automobile washing, steam cleaning, power washing, and carpet cleaning, etc.;
 - (5) Discharges of wash water from the cleaning or hosing of impervious surfaces in municipal, industrial, commercial, and residential areas including parking lots, streets, sidewalks, driveways, patios, plazas, work yards and outdoor eating or drinking areas, etc.;
 - (6) Discharges of runoff from material storage areas containing chemicals, fuels, grease, oil, or other hazardous materials;
 - (7) Discharges of pool or fountain water containing chlorine, biocides, or other chemicals; discharges of pool or fountain filter backwash water;
 - (8) Discharges of sediment, pet waste, vegetation clippings, or other landscape or construction-related wastes; and
 - (9) Discharges of food-related wastes (e.g., grease, fish processing, and restaurant kitchen mat and trash bin wash water, etc.).
- c. Prohibit and eliminate illicit connections to the MS4;
 - d. Control the discharge of spills, dumping, or disposal of materials other than storm water to its MS4;
 - e. Require compliance with conditions in Copermittee ordinances, permits, contracts or orders (i.e., hold dischargers to its MS4 accountable for their contributions of pollutants and flows);
 - f. Utilize enforcement mechanisms to require compliance with Copermittee storm water ordinances, permits, contracts, or orders;
 - g. Control the contribution of pollutants from one portion of the shared MS4 to another portion of the MS4 through interagency agreements among Copermittees. Control of the contribution of pollutants from one portion of the shared MS4 to another portion of the MS4 through interagency agreements with other owners of the MS4 such as CALTRANS, Native American Tribes, and the Department of Defense is encouraged;
 - h. Carry out all inspections, surveillance, and monitoring necessary to determine compliance and noncompliance with local ordinances and permits and with this Order, including the prohibition on illicit discharges to the MS4. This means the Copermittee must have authority to enter, sample, inspect, review and copy records, and require regular reports from industrial facilities discharging into its MS4, including construction sites; and
 - i. Require the use of best management practices (BMPs) to prevent or reduce the discharge of pollutants to MS4s.
2. Within **365 days** of adoption of this Order, each Copermittee shall provide to the SDRWQCB a statement certified by its chief legal counsel that the Copermittee has adequate legal authority to

implement and enforce each of the requirements contained in 40 CFR 122.26(d)(2)(i)(A-F) and this Order. This statement shall include:

- a. Identification of all departments within the jurisdiction that conduct urban runoff related activities, and their roles and responsibilities under this Order. Include an up to date organizational chart specifying these departments and key personnel;
- b. Citation of urban runoff related ordinances and the reasons they are enforceable;
- c. Identification of the local administrative and legal procedures available to mandate compliance with urban runoff related ordinances and therefore with the conditions of this Order;
- d. Description of how these ordinances are implemented and appealed; and
- e. Description of whether the municipality can issue administrative orders and injunctions or if it must go through the court system for enforcement actions.

E. TECHNOLOGY BASED STANDARDS

Each Copermittee shall implement, or require implementation of, best management practices to ensure that the following pollutant discharges **into** and/or **from** its MS4 are reduced to the applicable technology based standard as specified below:

Table 3. Technology Based Standards²

POLLUTANT DISCHARGE FROM	DESCRIPTION	APPLICABLE PERFORMANCE STANDARD
Industrial Activity <u>owned by the Copermittee</u>	Categorical Industry in 40 CFR 122.26	The Copermittees are required to implement BMPs to the BAT/BCT standard (pursuant to Statewide General Industrial Permit)
Industrial Activity	All other industry	The Copermittees are required to implement or require the implementation of BMPs to the MEP standard for discharges into their MS4s. ³
Construction Activity <u>owned by the Copermittee</u>	Greater than or Equal to 5 Acres (or less than 5 acres and Part of a Larger Common Plan of Sale or Development)	The Copermittees are required to implement BMPs to the BAT/BCT standard (pursuant to Statewide General Construction Permit)
Construction Activity	All Other construction	The Copermittees are required to implement or require the implementation of BMPs to the MEP standard for discharges into their MS4s ⁴
Other Sources	All Other Land Use Activities	The Copermittees are required to implement or require the implementation of BMPs to the MEP standard for discharges into their MS4s
MS4s	All discharges from MS4s	The Copermittees are required to implement or require the implementation of BMPs to the MEP standard for all discharges from their MS4s

² Pursuant to this Order, each Copermittee shall ensure that pollutants in runoff from industrial and construction sites within its jurisdiction have been reduced to the MEP standard before entering its MS4. The industrial and construction site dischargers themselves however must ensure that pollutants in runoff leaving their sites have been reduced to the BAT/BCT standard pursuant to either the statewide General Industrial or Construction Storm Water Permit. Runoff from industrial and construction sites owned by municipalities and subject to either the General Industrial or Construction Storm Water Permits, must meet the BAT/BCT standard.

³ The facility operator is required to implement BMPs to the BAT/BCT standard pursuant to the Statewide General Industrial permit.

⁴ The facility operator is required to implement BMPs to the BAT/BCT standard pursuant to the Statewide General Construction permit.

F. JURISDICTIONAL URBAN RUNOFF MANAGEMENT PROGRAM

Each Copermittee shall take appropriate actions to reduce discharges of pollutants and runoff flow during each of the three major phases of urban development, i.e., the planning, construction, and existing development (or use) phases. Following the adoption of the Order and prior to the full implementation of the Jurisdictional URMP, each Copermittee shall at a minimum implement the provisions and commitments of the proposed DAMP submitted in September 2000.

Each Copermittee shall implement a Jurisdictional Urban Runoff Management Program (Jurisdictional URMP) that contains the components shown below as described in Sections F.1. through F.9:

F.1. Land-Use Planning for New Development and Redevelopment Component**F.2. Construction Component****F.3. Existing Development Component**

- a. Municipal
- b. Industrial
- c. Commercial
- d. Residential

F.4. Education Component**F.5. Illicit Discharge Detection and Elimination Component****F.6. Common Interest Areas and Homeowners Associations****F.7. Public Participation Component****F.8. Assessment of Jurisdictional URMP Effectiveness Component****F.9. Fiscal Analysis Component*****F.1. Land-Use Planning for New Development and Redevelopment Component***

Each Copermittee shall minimize the short and long-term impacts on receiving water quality from new development and redevelopment. In order to reduce pollutants and runoff flows from new development and redevelopment to the maximum extent practicable, each Copermittee shall at a minimum:

- F.1.a Assess General Plan
- F.1.b Modify Development Project Approval Processes
- F.1.c Revise Environmental Review Processes
- F.1.d Conduct Education Efforts Focused on New Development and Redevelopment

F.1.a. Assess General Plan

Each Copermittee's General Plan or equivalent plan (e.g., Comprehensive, Master, or Community Plan) shall include water quality and watershed protection principles and policies to direct land-use decisions and require implementation of consistent water quality protection measures for development projects. As part of its Jurisdictional Urban Runoff Management Program document, each Copermittee shall provide a workplan with time schedule detailing any changes to its General Plan regarding water quality and watershed protection. Examples of water quality and watershed protection principles and policies to be considered include the following:

- (1) Minimize the amount of impervious surfaces and directly connected impervious surfaces in areas of new development and redevelopment and where feasible slow runoff and maximize on-site infiltration of runoff.
- (2) Implement pollution prevention methods supplemented by pollutant source controls and treatment. Use small collection strategies located at, or as close as possible to, the source (i.e., the point where water initially meets the ground) to minimize the transport of urban runoff and pollutants offsite and into an MS4.

- (3) Preserve, and where possible, create or restore areas that provide important water quality benefits, such as riparian corridors, wetlands, and buffer zones. Encourage land acquisition of such areas.
- (4) Limit disturbances of natural water bodies and natural drainage systems caused by development including roads, highways, and bridges.
- (5) Prior to making land use decisions, utilize methods available to estimate increases in pollutant loads and flows resulting from projected future development. Require incorporation of structural and non-structural BMPs to mitigate the projected increases in pollutant loads and flows.
- (6) Avoid development of areas that are particularly susceptible to erosion and sediment loss; or establish development guidance that identifies these areas and protects them from erosion and sediment loss.
- (7) Reduce pollutants associated with vehicles and increasing traffic resulting from development. Coordinate local traffic management reduction efforts with Orange County Transit Authority's Congestion Management Plan.
- (8) Post-development runoff from a site shall not contain pollutant loads that cause or contribute to an exceedance of receiving water quality objectives and which have not been reduced to the maximum extent practicable.

F.1.b. Modify Development Project Approval Processes

Prior to project approval and issuance of local permits, Copermittees shall require each proposed project to implement measures to ensure that pollutants and runoff from the development will be reduced to the maximum extent practicable and will not cause or contribute to an exceedance of receiving water quality objectives. Each Copermittee shall further ensure that all development will be in compliance with Copermittee storm water ordinances, local permits, all other applicable ordinances and requirements, and this Order.

(1) *Development Project Requirements*

Each Copermittee shall include development project requirements in local permits to ensure that pollutant discharges from development are reduced to the maximum extent practicable, peak runoff velocities and runoff volumes from development are controlled, and that receiving water quality objectives are not violated throughout the life of the project. Such requirements shall, at a minimum:

- (a) Require project proponent to implement source control BMPs for all applicable development projects.
- (b) Require project proponent to implement site design/landscape characteristics where feasible which maximize infiltration, provide retention, slow runoff, and minimize impervious land coverage for all development projects.
- (c) Require project proponent to implement buffer zones for natural water bodies, where feasible. Where buffer zone implementation is infeasible, require project proponent to implement other buffers such as trees, lighting restrictions, access restrictions, etc.
- (d) Require industrial applicants subject to California's statewide General NPDES Permit for Storm Water Discharges Associated with Industrial Activities (Except Construction), (hereinafter General Industrial Permit), to provide evidence of coverage under the General Industrial Permit.
- (e) Require project proponent to ensure its grading or other construction activities meet the provisions specified in Section F.2. of this Order.

- (f) Require project proponent to provide proof of a mechanism which will ensure ongoing long-term maintenance of all structural post-construction BMPs.

(2) *Standard Urban Storm Water Mitigation Plans (SUSMPs)*

Within 365 days of adoption of this Order, the Copermittees shall collectively develop a model Standard Urban Storm Water Mitigation Plan (SUSMP) to reduce pollutants and to maintain or reduce downstream erosion and stream habitat from all new development and significant redevelopment projects falling under the priority project categories or locations listed in section F.1.b.(2)(a) below. The Copermittees shall submit the model SUSMP to the SDRWQCB. Within 180 days of development of the model SUSMP, each Copermittee shall adopt its own local SUSMP, and amended ordinances consistent with the model SUSMP, and shall submit both (local SUSMP and amended ordinances) to the SDRWQCB.

Immediately following adoption of its local SUSMP, each Copermittee shall ensure that all new development and significant redevelopment projects falling under the priority project categories or locations listed in F.1.b.(2)(a) below meet SUSMP requirements. The SUSMP requirements shall apply to all priority projects or phases of priority projects that have not yet begun grading or construction activities. If a Copermittee determines that lawful prior approval of a project exists, whereby application of SUSMP requirements to the project is infeasible, SUSMP requirements need not apply to the project. Where feasible, the Copermittees shall utilize the 18-month SUSMP implementation period to ensure that projects undergoing approval processes include application of SUSMP requirements in their plans.

- (a) *Priority Development Project Categories - SUSMP requirements shall apply to all new development and significant redevelopment projects falling under the priority project categories or locations listed below.* Significant redevelopment is defined as the creation or addition of at least 5,000 square feet of impervious surfaces on an already developed site. Significant redevelopment includes, but is not limited to: the expansion of a building footprint or addition or replacement of a structure; structural development including an increase in gross floor area and/or exterior construction or remodeling; replacement of impervious surface that is not part of a routine maintenance activity; and land disturbing activities related with structural or impervious surfaces. Where significant redevelopment results in an increase of less than fifty percent of the impervious surfaces of a previously existing development, and the existing development was not subject to SUSMP requirements, the numeric sizing criteria discussed in section F.1.b.(2)(c) applies only to the addition, and not to the entire development.
 - i. *Home subdivisions of 10 or more housing units.* This category includes single-family homes, multi-family homes, condominiums, and apartments.
 - ii. *Commercial developments greater than 100,000 square feet.* This category is defined as any development on private land that is not for heavy industrial or residential uses where the land area for development is greater than 100,000 square feet. The category includes, but is not limited to: hospitals; laboratories and other medical facilities; educational institutions; recreational facilities; commercial nurseries; multi-apartment buildings; car wash facilities; mini-malls and other business complexes; shopping malls; hotels; office buildings; public warehouses; automotive dealerships; commercial airfields; and other light industrial facilities.
 - iii. *Automotive repair shops.* This category is defined as a facility that is categorized in any one of the following Standard Industrial Classification (SIC) codes: 5013, 5014, 5541, 7532-7534, or 7536-7539.

- iv. *Restaurants.* This category is defined as a facility that sells prepared foods and drinks for consumption, including stationary lunch counters and refreshment stands selling prepared foods and drinks for immediate consumption (SIC code 5812), where the land area for development is greater than 5,000 square feet. Restaurants where land development is less than 5,000 square feet shall meet all SUSMP requirements except for structural treatment BMP and numeric sizing criteria requirement F.1.b.(2)(c) and peak flow rate requirement F.1.b(2)(b)(i).
 - v. *All hillside development greater than 5,000 square feet.* This category is defined as any development which creates 5,000 square feet of impervious surface which is located in an area with known erosive soil conditions, where the development will grade on any natural slope that is twenty-five percent or greater.
 - vi. *Environmentally Sensitive Areas: All development and redevelopment located within or directly adjacent to or discharging directly to an environmentally sensitive area (where discharges from the development or redevelopment will enter receiving waters within the environmentally sensitive area), which either creates 2,500 square feet of impervious surface on a proposed project site or increases the area of imperviousness of a proposed project site to 10% or more of its naturally occurring condition.* Environmentally sensitive areas include but are not limited to all Clean Water Act Section 303(d) impaired water bodies; areas designated as Areas of Special Biological Significance by the State Water Resources Control Board (Water Quality Control Plan for the San Diego Basin (1994) and amendments); water bodies designated with the RARE beneficial use by the State Water Resources Control Board (Water Quality Control Plan for the San Diego Basin (1994) and amendments); areas designated as preserves or equivalent under the Natural Community Conservation Planning Program; and any areas designated as Critical Aquatic Resources (CARS) or other equivalent environmentally sensitive areas which have been identified by the Copermitttees. "Directly adjacent" means situated within 200 feet of the environmentally sensitive area. "Discharging directly to" means outflow from a drainage conveyance system that is composed entirely of flows from the subject development or redevelopment site, and not commingled with flows from adjacent lands.
 - vii. *Parking lots 5,000 square feet or more or with 15 or more parking spaces and potentially exposed to urban runoff.* Parking lot is defined as a land area or facility for the temporary parking or storage of motor vehicles used personally, for business, or for commerce.
 - viii. *Street, roads, highways, and freeways.* This category includes any paved surface that is 5,000 square feet or greater used for the transportation of automobiles, trucks, motorcycles, and other vehicles.
- (b) BMP Requirements – The SUSMP shall include a list of recommended source control and structural treatment BMPs. The SUSMP shall require all new development and significant redevelopment projects falling under the above priority project categories or locations to implement a combination of BMPs selected from the recommended BMP list, including at a minimum (1) source control BMPs and (2) structural treatment BMPs. The BMPs shall, at a minimum:
- i. Control the post-development peak storm water runoff discharge rates and velocities to maintain or reduce pre-development downstream erosion, and to protect stream habitat;

- ii. Conserve natural areas where feasible;
 - iii. Minimize storm water pollutants of concern in urban runoff from the new development or significant redevelopment (through implementation of source control BMPs). Identification of pollutants of concern should include at a minimum consideration of any pollutants for which water bodies receiving the development's runoff are listed as impaired under Clean Water Act section 303(d), any pollutant associated with the land use type of the development, and any pollutant commonly associated with urban runoff;
 - iv. Remove pollutants of concern from urban runoff (through implementation of structural treatment BMPs);
 - v. Minimize directly connected impervious areas where feasible;
 - vi. Protect slopes and channels from eroding;
 - vii. Include storm drain stenciling and signage;
 - viii. Include properly designed outdoor material storage areas;
 - ix. Include properly designed trash storage areas;
 - x. Include proof of a mechanism, to be provided by the project proponent or Copermittee, which will ensure ongoing long-term structural BMP maintenance;
 - xi. Include additional water quality provisions applicable to individual priority project categories;
 - xii. Be correctly designed so as to remove pollutants to the maximum extent practicable;
 - xiii. Be implemented close to pollutant sources, when feasible, and prior to discharging into receiving waters supporting beneficial uses; and
 - xiv. Ensure that post-development runoff does not contain pollutant loads which cause or contribute to an exceedance of water quality objectives and which have not been reduced to the maximum extent practicable.
- (c) Numeric Sizing Criteria – The SUSMP shall require structural treatment BMPs to be implemented for all priority development projects. All structural treatment BMPs shall be located so as to infiltrate, filter, or treat the required runoff volume or flow prior to its discharge to any receiving water body supporting beneficial uses. Structural treatment BMPs may be shared by multiple new development projects as long as construction of any shared structural treatment BMPs is completed prior to the use of any new development project from which the structural treatment BMP will receive runoff.

In addition to meeting the BMP requirements listed in item F.1.b.(2)(b) above, all structural treatment BMPs for a single priority development project shall collectively be sized to comply with the following numeric sizing criteria:

Volume

Volume-based BMPs shall be designed to mitigate (infiltrate, filter, or treat) either:

- i. The volume of runoff produced from a 24-hour 85th percentile storm event, as determined from the local historical rainfall record (0.8 inch approximate average for the Orange County area);⁵ or
- ii. The volume of runoff produced by the 85th percentile 24-hour rainfall event, determined as the maximized capture storm water volume for the area, from the formula recommended in Urban Runoff Quality

⁵This volume is not a single volume to be applied to all of Orange County. The size of the 85th percentile storm event is different for various parts of the County. The Copermittees are encouraged to calculate the 85th percentile storm event for each of their jurisdictions using local rain data pertinent to their particular jurisdiction (the 0.8 inch standard is a rough average for the County and should only be used where appropriate rain data is not available). In addition, isopluvial maps may be used to extrapolate rainfall data to areas where insufficient data exists in order to determine the volume of the local 85th percentile storm event in such areas. Where the Copermittees will use isopluvial maps to determine the 85th percentile storm event in areas lacking rain data, the Copermittees shall describe their method for using isopluvial maps in the model and local SUSMPs.

Management, WEF Manual of Practice No. 23/ASCE Manual of Practice No. 87, (1998); or

- iii. The volume of annual runoff based on unit basin storage volume, to achieve 90% or more volume treatment by the method recommended in California Stormwater Best Management Practices Handbook – Industrial/Commercial, (1993); or
- iv. The volume of runoff, as determined from the local historical rainfall record, that achieves approximately the same reduction in pollutant loads and flows as achieved by mitigation of the 85th percentile 24-hour runoff event;⁶

OR

Flow

Flow-based BMPs shall be designed to mitigate (infiltrate, filter, or treat) either:

- i. The maximum flow rate of runoff produced from a rainfall intensity of 0.2 inch of rainfall per hour, for each hour; or
- ii. The maximum flow rate of runoff produced by the 85th percentile hourly rainfall intensity, as determined from the local historical rainfall record, multiplied by a factor of two; or
- iii. The maximum flow rate of runoff, as determined from the local historical rainfall record, that achieves approximately the same reduction in pollutant loads and flows as achieved by mitigation of the 85th percentile hourly rainfall intensity multiplied by a factor of two.

- (d) Equivalent Numeric Sizing Criteria - The Copermittees may develop, as part of the model SUSMP, any equivalent method for calculating the volume or flow which must be mitigated (i.e., any equivalent method for calculating numeric sizing criteria) by post-construction structural treatment BMPs. Such equivalent sizing criteria may be authorized by the SDRWQCB for use in place of the above criteria. In the absence of development and subsequent authorization of such equivalent numeric sizing criteria, the above numeric sizing criteria requirement shall be implemented.
- (e) Pollutants or Conditions of Concern – As part of the model SUSMP, the Copermittees shall develop a procedure for pollutants or conditions of concern to be identified for each new development or significant redevelopment project. The procedure shall include, at a minimum, consideration of (1) receiving water quality (including pollutants for which receiving waters are listed as impaired under Clean Water Act section 303(d)); (2) land use type of the development project and pollutants associated with that land use type; (3) pollutants expected to be present on site; (4) changes in storm water discharge flow rates, velocities, durations, and volumes resulting from the development project; and (5) sensitivity of receiving waters to changes in storm water discharge flow rates, velocities, durations, and volumes.
- (f) Implementation Process – As part of the model SUSMP, the Copermittees shall develop a process by which SUSMP requirements will be implemented. The process shall identify at what point in the planning process development projects will be required to meet SUSMP requirements. The process shall also include identification of the roles and responsibilities of various municipal departments in implementing the SUSMP requirements, as well as any other measures necessary for the implementation of SUSMP requirements.

⁶ Under this volume criteria, hourly rainfall data may be used to calculate the 85th percentile storm event, where each storm event is identified by its separation from other storm events by at least six hours of no rain. Where the Copermittees may use hourly rainfall data to calculate the 85th percentile storm event, the Copermittees shall describe their method for using hourly rainfall data to calculate the 85th percentile storm event in the model and local SUSMPs.

- (g) Waiver Provision – A Copermittee may provide for a project to be waived from the requirement of implementing all structural treatment BMPs (F.1.b.(2)(b) & F.1.b.(2)(c)) if infeasibility can be established. A waiver of infeasibility shall only be granted by a Copermittee when all available structural treatment BMPs have been considered and rejected as infeasible. Copermittees shall notify the SDRWQCB within 5 days of each waiver issued and shall include the name of the person granting each waiver.

As part of the model SUSMP, the Copermittees may develop a program to require project proponents who have received waivers to transfer the savings in cost, as determined by the Copermittee(s), to a storm water mitigation fund. This program may be implemented by all Copermittees that choose to provide waivers. Funds may be used on projects to improve urban runoff quality within the watershed of the waived project. The waiver program may identify:

- i. The entity or entities that will manage the storm water mitigation fund (i.e., assume full responsibility for)
 - ii. The range and types of acceptable projects for which mitigation funds may be expended;
 - iii. The entity or entities that will assume full responsibility for each mitigation project including its successful completion
 - iv. How the dollar amount of fund contributions will be determined.
- (h) Infiltration and Groundwater Protection – To protect groundwater quality, each Copermittee shall apply restrictions to the use of structural treatment BMPs which are designed to primarily function as infiltration devices (such as infiltration trenches and infiltration basins). Such restrictions shall ensure that the use of such infiltration structural treatment BMPs shall not cause or contribute to an exceedance of groundwater quality objectives. At a minimum, use of structural treatment BMPs which are designed to primarily function as infiltration devices shall meet the following conditions:⁷
- i. Urban runoff shall undergo pretreatment such as sedimentation or filtration prior to infiltration.
 - ii. All dry weather flows shall be diverted from infiltration devices.
 - iii. Pollution prevention and source control BMPs shall be implemented at a level appropriate to protect groundwater quality at sites where infiltration structural treatment BMPs are to be used.
 - iv. Infiltration structural treatment BMPs shall be adequately maintained so that they remove pollutants to the maximum extent practicable.
 - v. The vertical distance from the base of any infiltration structural treatment BMP to the seasonal high groundwater mark shall be at least 10 feet. Where groundwater basins do not support beneficial uses, this vertical distance criteria may be reduced, provided groundwater quality is maintained.
 - vi. The soil through which infiltration is to occur shall have physical and chemical characteristics (such as appropriate cation exchange capacity, organic content, clay content, and infiltration rate) which are adequate for proper infiltration durations and treatment of urban runoff for the protection of groundwater beneficial uses.
 - vii. Infiltration structural treatment BMPs shall not be used for areas of industrial or light industrial activity; areas subject to high vehicular traffic (25,000 or greater average daily traffic on main roadway or 15,000 or more average daily traffic on any intersecting roadway); automotive repair shops; car washes; fleet storage

⁷ These conditions do not apply to structural treatment BMPs which allow incidental infiltration and are not designed to primarily function as infiltration devices (such as grassy swales, detention basins, vegetated buffer strips, constructed wetlands, etc.)

- areas (bus, truck, etc.); nurseries; and other high threat to water quality land uses and activities as designated by each Copermittee.
- viii. Infiltration structural BMPs shall be located a minimum of 100 feet horizontally from any water supply wells.

As part of the model and local SUSMPs, the Copermittees may develop alternative restrictions on the use of structural treatment BMPs which are designed to primarily function as infiltration devices.

- (i) Downstream Erosion – As part of the model SUSMP and the local SUSMPs, the Copermittees shall develop criteria to ensure that discharges from new development and significant redevelopment maintain or reduce pre-development downstream erosion and protect stream habitat. At a minimum, criteria shall be developed to control peak storm water discharge rates and velocities in order to maintain or reduce pre-development downstream erosion and protect stream habitat. Storm water discharge volumes and durations should also be considered.

F.1.c. Revise Environmental Review Processes

- (1) To the extent feasible, the Copermittees shall revise their current environmental review processes to include requirements for evaluation of water quality effects and identification of appropriate mitigation measures. The following questions are examples to be considered in addressing increased pollutants and flows from proposed projects:
- (a) Could the proposed project result in an increase in pollutant discharges to receiving waters? Consider water quality parameters such as temperature, dissolved oxygen, turbidity and other typical storm water pollutants (e.g., heavy metals, pathogens, petroleum derivatives, synthetic organics, sediment, nutrients, oxygen-demanding substances, and trash).
 - (b) Could the proposed project result in significant alteration of receiving water quality during or following construction?
 - (c) Could the proposed project result in increased impervious surfaces and associated increased runoff?
 - (d) Could the proposed project create a significant adverse environmental impact to drainage patterns due to changes in runoff flow rates or volumes?
 - (e) Could the proposed project result in increased erosion downstream?
 - (f) Is the project tributary to an already impaired water body, as listed on the Clean Water Act Section 303(d) list? If so, can it result in an increase in any pollutant for which the water body is already impaired?
 - (g) Is project tributary to other environmentally sensitive areas? If so, can it exacerbate already existing sensitive conditions?
 - (h) Could the proposed project have a potentially significant environmental impact on surface water quality, to either marine, fresh, or wetland waters?
 - (i) Could the proposed project have a potentially significant adverse impact on ground water quality?
 - (j) Could the proposed project cause or contribute to an exceedance of applicable surface or groundwater receiving water quality objectives or degradation of beneficial uses?
 - (k) Can the project impact aquatic, wetland, or riparian habitat?

F.1.d. Conduct Education Efforts Focused on New Development and Redevelopment

- (1) Internal: Municipal Staff and Others

Each Copermittee shall implement an education program to ensure that its planning and development review staffs (and Planning Boards and Elected Officials, if applicable) have an understanding of:

- (a) Federal, state, and local water quality laws and regulations applicable to development projects;
 - (b) The connection between land use decisions and short and long-term water quality impacts (i.e., impacts from land development and urbanization); and
 - (c) How impacts to receiving water quality resulting from development can be minimized (i.e., through implementation of various source control and structural BMPs).
- (2) External: Project Applicants, Developers, Contractors, Property Owners, Community Planning Groups

As early in the planning and development process as possible, each Copermittee shall implement a program to educate project applicants, developers, contractors, property owners, and community planning groups on the following topics:

- (a) Federal, state, and local water quality laws and regulations applicable to development projects;
- (b) Required federal, state, and local permits pertaining to water quality;
- (c) Water quality impacts of urbanization; and
- (d) Methods for minimizing the impacts of development on receiving water quality.

F.2. Construction Component

Each Copermittee shall implement a Construction Component of its Jurisdictional URMP to reduce pollutants in runoff from construction sites during all construction phases. At a minimum the construction component shall address:

- F.2.a. Pollution Prevention
- F.2.b. Grading Ordinance Update
- F.2.c. Modify Construction and Grading Approval Process
- F.2.d. Source Identification
- F.2.e. Threat to Water Quality Prioritization
- F.2.f. BMP Implementation
- F.2.g. Inspection of Construction Sites
- F.2.h. Enforcement of Construction Sites
- F.2.i. Reporting of Non-compliant Sites
- F.2.j. Education Focused on Construction Activities

F.2.a. Pollution Prevention (Construction)

Each Copermittee shall implement pollution prevention methods in its Construction Component and shall require its use by construction site owners, developers, contractors, and other responsible parties, where appropriate.

F.2.b. Grading Ordinance Update (Construction)

Each Copermittee shall review and update its grading ordinances as necessary for compliance with its storm water ordinances and this Order. The updated grading ordinance shall require implementation of BMPs and other measures during all construction activities, including the following BMPs and other measures or their equivalent:

- (1) Erosion prevention;
- (2) Seasonal restrictions on grading;
- (3) Slope stabilization requirements;
- (4) Phased grading;
- (5) Revegetation as early as feasible;

- (6) Preservation of natural hydrologic features;
- (7) Preservation of riparian buffers and corridors;
- (8) Maintenance of all source control and structural treatment BMPs; and
- (9) Retention and proper management of sediment and other construction pollutants on site.

F.2.c Modify Construction and Grading Approval Process (Construction)

Prior to approval and issuance of local construction and grading permits, each Copermittee shall require all individual proposed construction and grading projects to implement measures to ensure that pollutants from the site will be reduced to the maximum extent practicable and will not cause or contribute to an exceedance of water quality objectives. Each Copermittee shall further ensure that all grading and construction activities will be in compliance with applicable Copermittee ordinances (e.g., storm water, grading, construction, etc.) and other applicable requirements, including this Order.

(1) Construction and Grading Project Requirements

Include construction and grading project requirements in local grading and construction permits to ensure that pollutant discharges are reduced to the maximum extent practicable and water quality objectives are not violated during the construction phase. Such requirements shall include the following requirements or their equivalent:

- (a) Require project proponent to develop and implement a plan to manage storm water and non-storm water discharges from the site at all times;
- (b) Require project proponent to minimize grading during the wet season and coincide grading with seasonal dry weather periods to the extent feasible. If grading does occur during the wet season, require project proponent to implement additional BMPs for any rain events which may occur, as necessary for compliance with this Order;
- (c) Require project proponent to emphasize erosion prevention as the most important measure for keeping sediment on site during construction;
- (d) Require project proponent to utilize sediment controls as a supplement to erosion prevention for keeping sediment on-site during construction, and never as the single or primary method;
- (e) Require project proponent to minimize areas that are cleared and graded to only the portion of the site that is necessary for construction;
- (f) Require project proponent to minimize exposure time of disturbed soil areas;
- (g) Require project proponent to temporarily stabilize and reseed disturbed soil areas as rapidly as possible;
- (h) Require project proponent to permanently revegetate or landscape as early as feasible;
- (i) Require project proponent to stabilize all slopes; and
- (j) Require project proponents subject to California's statewide General NPDES Permit for Storm Water Discharges Associated With Construction Activities, (hereinafter General Construction Permit), to provide evidence of existing coverage under the General Construction Permit.

F.2.d. Source Identification (Construction)

Each Copermittee shall annually develop and update, prior to the rainy season, a watershed-based inventory of all construction sites within its jurisdiction regardless of site size or ownership. This requirement is applicable to all construction sites regardless of whether the construction site is subject to the California statewide General NPDES Permit for Storm Water Discharges Associated With Construction Activities (hereinafter General Construction Permit), or other individual NPDES permit. The use of an automated database system, such as Geographical Information System (GIS) is highly recommended, but not required.

F.2.e. Threat to Water Quality Prioritization (Construction)

- (1) To establish priorities for construction oversight activities under this Order, the Copermittee shall prioritize its watershed-based inventory (developed pursuant to F.2.d. above) by threat to water quality. Each construction site shall be classified as high, medium, or low threat to water quality. In evaluating threat to water quality each Copermittee shall consider (1) soil erosion potential; (2) site slope; (3) project size and type; (4) sensitivity of receiving water bodies; (5) proximity to receiving water bodies; (6) non-storm water discharges; and (7) any other relevant factors.
- (2) A high priority construction site shall at a minimum be defined as a site meeting either of the following criteria or equivalent criteria:
 - (a) The site is 50 acres or more and grading will occur during the wet season; OR
 - (b) The site is (1) 5 acres or more and (2) tributary to a Clean Water Act section 303(d) water body impaired for sediment or is within or directly adjacent to or discharging directly to a receiving water within an environmentally sensitive area (as defined in section F.1.b.(2)(a)vi. of this Order).

F.2.f. BMP Implementation (Construction)

- (1) Each Copermittee shall designate a set of minimum BMPs for high, medium, and low threat to water quality construction sites (as determined under section F.2.e). BMPs are to be implemented year round.
- (2) Each Copermittee shall implement, or require the implementation of, the designated minimum BMPs (based upon the site's threat to water quality rating) at each construction site within its jurisdiction year round. If particular minimum BMPs are infeasible at any specific site, each Copermittee shall implement, or require the implementation of, other equivalent BMPs. Each Copermittee shall also implement or require any additional site specific BMPs as necessary to comply with this Order, including BMPs which are more stringent than those required under the statewide General Construction Permit.
- (3) Each Copermittee shall implement, or require the implementation of, BMPs year round; however, BMP implementation requirements can vary based on wet and dry seasons.
- (4) Each Copermittee shall implement, or require implementation of, additional controls for construction sites tributary to Clean Water Act section 303(d) water bodies impaired for sediment as necessary to comply with this Order. Each Copermittee shall implement, or require implementation of, additional controls for construction sites within or adjacent to or discharging directly to receiving waters within environmentally sensitive areas (as defined in section F.1.b.(2)(a)vi. of this Order) as necessary to comply with this Order.

F.2.g. Inspection of Construction Sites (Construction)

- (1) Each Copermittee shall conduct construction site inspections for compliance with its ordinances (grading, storm water, etc.), permits (construction, grading, etc.), and this Order. Inspections shall include review of site erosion control and BMP implementation plans.
- (2) Each Copermittee shall establish inspection frequencies and priorities as determined by the threat to water quality prioritization described in F.2.e above. During the wet season (i.e., October 1 through April 30 of each year), each Copermittee shall inspect, at a minimum, each High Priority construction site, either:

(a) Weekly

OR

- (b) Monthly for any site that the responsible Copermittee certifies in a written statement to the SDRWQCB all of the following (certified statements may be submitted to the SDRWQCB at any time for one or more sites):
- i. Copermittee has record of construction site's Waste Discharge Identification Number (WDID#) documenting construction site's coverage under the statewide General Construction Permit; and
 - ii. Copermittee has reviewed the construction site's Storm Water Pollution Prevention Plan (SWPPP); and
 - iii. Copermittee finds SWPPP to be in compliance with all local ordinances, permits, and plans; and
 - iv. Copermittee finds that the SWPPP is being properly implemented on site.

At a minimum, Medium and Low Priority construction sites shall be inspected by Copermittees twice during the wet season. All construction sites shall be inspected by the Copermittees as needed during the dry season (i.e., May 1 through September 30 of each year).

- (3) Based upon site inspection findings, each Copermittee shall implement all follow-up actions necessary to comply with this Order.

F.2.h. Enforcement of Construction Sites (Construction)

Each Copermittee shall enforce its ordinances (grading, storm water, etc.) and permits (construction, grading, etc.) at all construction sites as necessary to maintain compliance with this Order. Copermittee ordinances or other regulatory mechanisms shall include sanctions to ensure compliance. Sanctions shall include the following or their equivalent: Non-monetary penalties, fines, bonding requirements, and/or permit denials for non-compliance.

F.2.i. Reporting of Non-compliant Sites (Construction)

Each Copermittee shall provide oral notification to the SDRWQCB of non-compliant sites that are determined to pose a threat to human or environmental health within its jurisdiction within 24 hours of the discovery of noncompliance, as required under section R.1 (and B.6 of Attachment C) of this Order.

Each Copermittee shall develop and submit criteria by which to evaluate events of non-compliance to determine whether they pose a threat to human or environmental health. These criteria shall be submitted in the Jurisdictional Urban Runoff Management Program Document and Annual Reports for SDRWQCB review.

Such oral notification shall be followed up by a written report to be submitted to the SDRWQCB within 5 days of the incidence of non-compliance as required under section R.1 (and B.6 of Attachment C) of this Order. Sites are considered non-compliant when one or more violations of local ordinances, permits, plans, or this Order exist on the site.

F.2.j. Education Focused on Construction Activities (Construction)

(1) Internal: Municipal Staff

Each Copermittee shall implement an education program to ensure that its construction, building, and grading review staffs and inspectors have an understanding of:

- (a) Federal, state, and local water quality laws and regulations applicable to construction and grading activities.
- (b) The connection between construction activities and water quality impacts (i.e., impacts from land development and urbanization).
- (c) How erosion can be prevented.
- (d) How impacts to receiving water quality resulting from construction activities can be minimized (i.e., through implementation of various source control and structural BMPs).
- (e) Applicable topics listed in section F.4. of this Order.

(2) External: Project Applicants, Contractors, Developers, Property Owners, and other Responsible Parties

Each Copermittee shall implement an education program to ensure that project applicants, contractors, developers, property owners, and other responsible parties have an understanding of the topics outlined in section F.2.j.(1) above of this Order.

F.3. Existing Development Component

Each Copermittee shall minimize the short and long-term impacts on receiving water quality from all types of existing development.

F.3.a. Municipal (Existing Development)

Each Copermittee shall implement a Municipal (Existing Development) Component to prevent or reduce pollutants in runoff from all municipal land use areas and activities. At a minimum the municipal component shall address:

- | | |
|-----------|---|
| F.3.a.(1) | Pollution Prevention |
| F.3.a.(2) | Source Identification |
| F.3.a.(3) | Threat to Water Quality Prioritization |
| F.3.a.(4) | BMP Implementation |
| F.3.a.(5) | Maintenance of Municipal Separate Storm Sewer System |
| F.3.a.(6) | Management of Pesticides, Herbicides, and Fertilizers |
| F.3.a.(7) | Inspection of Municipal Areas and Activities |
| F.3.a.(8) | Enforcement of Municipal Areas and Activities |

F.3.a.(1) Pollution Prevention (Municipal)

Each Copermittee shall include and describe pollution prevention methods within its Municipal (Existing Development) Component. Each Copermittee shall require the use of pollution prevention methods by municipal departments, contractors, and personnel, where appropriate.

F.3.a.(2) Source Identification (Municipal)

Each Copermittee shall develop, and update annually, a watershed-based inventory of the name, address (if applicable), and description of all municipal land use areas and activities which generate pollutants.

F.3.a.(3) Threat to Water Quality Prioritization (Municipal)

- (a) To establish priorities for oversight of municipal areas and activities required under this Order, each Copermittee shall prioritize each watershed inventory in F.3.a.2. above by threat to water quality and update annually. Each municipal area and activity shall be classified as high, medium, or low threat to water quality. In evaluating threat to water quality, each Copermittee shall consider (1) type of municipal area or activity; (2) materials used; (3) wastes generated; (4) pollutant discharge potential; (5) non-storm water discharges; (6) size of facility or area; (7) proximity to receiving water bodies; (8) sensitivity of receiving water bodies; and (9) any other relevant factors.
- (b) At a minimum, the high priority municipal areas and activities shall include the following:
- i. Roads, Streets, Highways, and Parking Facilities.
 - ii. Flood Management Projects and Flood Control Devices.
 - iii. Areas and activities tributary to a Clean Water Act section 303(d) impaired water body, where an area or activity generates pollutants for which the water body is impaired. Areas and activities within or adjacent to or discharging directly to receiving waters within environmentally sensitive areas (as defined in section F.1.b.(2)(a)vi of this Order).
 - iv. Municipal Waste Facilities.
 - Active or closed municipal landfills;
 - Publicly owned treatment works (including water and wastewater treatment plants) and sanitary sewage collection systems;
 - Municipal separate storm sewer systems;
 - Incinerators;
 - Solid waste transfer facilities;
 - Land application sites;
 - Uncontrolled sanitary landfills;
 - Corporate yards including maintenance and storage yards for materials, waste, equipment and vehicles;
 - Sites for disposing and treating sewage sludge; and
 - Hazardous waste treatment, disposal, and recovery facilities.
 - v. Other municipal areas and activities that the Copermittee determines may contribute a significant pollutant load to the MS4.
 - vi. Municipal airfields.

F.3.a.(4) BMP Implementation (Municipal)

- (a) Each Copermittee shall designate a set of minimum BMPs for high, medium, and low threat to water quality municipal areas and activities (as determined under section F.3.a.(3)). The designated minimum BMPs for high threat to water quality municipal areas and activities shall be area or activity specific as appropriate.
- (b) Each Copermittee shall implement, or require the implementation of, the designated minimum BMPs (based upon the threat to water quality rating) at each municipal area or activity within its jurisdiction. If particular minimum BMPs are infeasible for any specific area or activity, each Copermittee shall implement, or require implementation of other equivalent BMPs. Each Copermittee shall also implement any additional BMPs as are necessary to comply with this Order.
- i. Each Copermittee shall evaluate feasibility of retrofitting existing structural flood control devices and retrofit where needed.
- (c) Each Copermittee shall implement, or require implementation of, any additional controls for municipal areas and activities tributary to Clean Water Act section 303(d) impaired

water bodies (where an area or activity generates pollutants for which the water body is impaired) as necessary to comply with this Order. Each Copermittee shall implement, or require implementation of, additional controls for municipal areas and activities within or directly adjacent to or discharging directly to receiving waters within environmentally sensitive areas (as defined in section F.1.b.(2)(a)vi. of this Order) as necessary to comply with this Order.

F.3.a.(5) Maintenance of Municipal Separate Storm Sewer System (Municipal)

- (a) Each Copermittee shall implement a schedule of maintenance activities at all structural controls designed to reduce pollutant discharges to or from its MS4s and related drainage structures.
- (b) Each Copermittee shall implement a schedule of maintenance activities for the municipal separate storm sewer system.
- (c) The maintenance activities must, at a minimum, include:
 - i. Inspection and removal of accumulated waste (e.g. sediment, trash, debris and other pollutants) between May 1 and September 30 of each year;
 - ii. Additional cleaning as necessary between October 1 and April 30 of each year;
 - iii. Record keeping of cleaning and the overall quantity of waste removed;
 - iv. Proper disposal of waste removed pursuant to applicable laws;
 - v. Measures to eliminate waste discharges during MS4 maintenance and cleaning activities.

F.3.a.(6) Management of Pesticides, Herbicides, and Fertilizers (Municipal)

The Copermittees shall implement BMPs to reduce the contribution of pollutants associated with the application, storage, and disposal of pesticides, herbicides and fertilizers from municipal areas and activities to MS4s. Important municipal areas and activities include municipal facilities, public rights-of-way, parks, recreational facilities, golf courses, cemeteries, botanical or zoological gardens and exhibits, landscaped areas, etc.

Such BMPs shall include, at a minimum: (1) educational activities, permits, certifications and other measures for municipal applicators and distributors; (2) integrated pest management measures that rely on non-chemical solutions; (3) the use of native vegetation; (4) schedules for irrigation and chemical application; and (5) the collection and proper disposal of unused pesticides, herbicides, and fertilizers.

F.3.a.(7) Inspection of Municipal Areas and Activities (Municipal)

At a minimum, each Copermittee shall inspect high priority municipal areas and activities annually. Based upon site inspection findings, each Copermittee shall implement all follow-up actions necessary to comply with this Order.

F.3.a.(8) Enforcement of Municipal Areas and Activities (Municipal)

Each Copermittee shall enforce its storm water ordinance for all municipal areas and activities as necessary to maintain compliance with this Order.

F.3.b. Industrial (Existing Development)

Each Copermittee shall implement an Industrial (Existing Development) Component to reduce pollutants in runoff from all industrial sites. At a minimum the industrial component shall address:

- F.3.b.(1) Pollution Prevention
- F.3.b.(2) Source Identification
- F.3.b.(3) Threat to Water Quality Prioritization
- F.3.b.(4) BMP Implementation
- F.3.b.(5) Monitoring of Industrial Sites
- F.3.b.(6) Inspection of Industrial Sites
- F.3.b.(7) Enforcement Measures for Industrial Sites
- F.3.b.(8) Reporting of Non-compliant Sites

F.3.b.(1) Pollution Prevention (Industrial)

Each Copermittee shall include and describe pollution prevention methods within its Industrial (Existing Development) Component. Each Copermittee shall require the use of pollution prevention methods by industry, where appropriate.

F.3.b.(2) Source Identification (Industrial)

Each Copermittee shall develop and update annually a watershed-based inventory of all industrial sites within its jurisdiction regardless of site ownership. This requirement is applicable to all industrial sites regardless of whether the industrial site is subject to the California statewide General NPDES Permit for Storm Water Discharges Associated With Industrial Activities, Except Construction (hereinafter General Industrial Permit) or other individual NPDES permit.

The inventory shall include the following minimum information for each industrial site: name; address; and a narrative description including SIC codes which best reflects the principal products or services provided by each facility.

F.3.b.(3) Threat to Water Quality Prioritization (Industrial)

- (a) To establish priorities for industrial oversight activities under this Order, the Copermittee shall prioritize each watershed-based inventory in F.3.b.(2) above by threat to water quality and update annually. Each industrial site shall be classified as high, medium, or low threat to water quality. In evaluating threat to water quality each Copermittee shall consider (1) type of industrial activity (SIC Code); (2) materials used in industrial processes; (3) wastes generated; (4) pollutant discharge potential; (5) non-storm water discharges; (6) size of facility; (7) proximity to receiving water bodies; (8) sensitivity of receiving water bodies; (9) whether the industrial site is subject to the statewide General Industrial Permit; and (10) any other relevant factors.
- (b) At a minimum the high priority industrial sites shall include industrial facilities that are subject to section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA); industrial facilities tributary to a Clean Water Act section 303(d) impaired water body, where a facility generates pollutants for which the water body is impaired; industrial facilities within or directly adjacent to or discharging directly to receiving waters within environmentally sensitive areas (as defined in section F.1.b.(2)(a)vi. of this Order); facilities subject to the statewide General Industrial Permit (excluding those facilities that have been approved for No Exposure Certification); and all other industrial facilities that the Copermittee determines are contributing significant pollutant loading to its MS4, regardless of whether such facilities are covered under the statewide General Industrial Permit or other NPDES permit.

F.3.b.(4) BMP Implementation (Industrial)

- (a) Each Copermittee shall designate a set of minimum BMPs for high, medium, and low threat to water quality industrial sites (as determined under section F.3.b.(3)). The designated minimum BMPs for high threat to water quality industrial sites shall be industry and site specific as appropriate.
- (b) Each Copermittee shall implement, or require the implementation of, the designated minimum BMPs (based upon the site's threat to water quality rating) at each industrial site within its jurisdiction. If particular minimum BMPs are infeasible at any specific site, each Copermittee shall implement, or require implementation of, other equivalent BMPs. Each Copermittee shall also implement or require any additional site specific BMPs as necessary to comply with this Order including BMPs which are more stringent than those required under the statewide General Industrial Permit.
- (c) Each Copermittee shall implement, or require implementation of, additional controls for industrial sites tributary to Clean Water Act section 303(d) impaired water bodies (where a site generates pollutants for which the water body is impaired) as necessary to comply with this Order. Each Copermittee shall implement, or require implementation of, additional controls for industrial sites within or directly adjacent to or discharging directly to receiving waters within environmentally sensitive areas (as defined in section F.1.b.(2)(a)vi. of this Order) as necessary to comply with this Order.

F.3.b.(5) Monitoring of Industrial Sites (Industrial)

- (a) Each Copermittee shall conduct, or require industry to conduct, a monitoring program for runoff from each high threat to water quality industrial site (identified in F.3.b.(3) above). Group monitoring by multiple industrial sites conducted under group monitoring programs approved by the State Water Resources Control Board is acceptable.
- (b) At a minimum, the monitoring program shall provide quantitative data from two storm events per year on the following constituents:
 - i. Any pollutant listed in effluent guidelines subcategories where applicable;
 - ii. Any pollutant for which an effluent limit has been established in an existing NPDES permit for the facility;
 - iii. Oil and grease or Total Organic Carbon (TOC);
 - iv. pH;
 - v. Total suspended solids (TSS);
 - vi. Specific conductance; and
 - vii. Toxic chemicals and other pollutants that are likely to be present in storm water discharges.
 - viii. Any pollutant that may be used, stored, or generated at the facility, which may be discharged to a water body or a tributary of that water body that is listed as impaired under Clean Water Act Section 303(d) for that pollutant(s), unless the facility can demonstrate approval of No Exposure Certification.

F.3.b.(6) Inspection of Industrial Sites (Industrial)

- (a) Each Copermittee shall conduct industrial site inspections for compliance with its ordinances, permits, and this Order. Inspections shall include review of BMP implementation plans.
- (b) Each Copermittee shall establish inspection frequencies and priorities as determined by the threat to water quality prioritization described in F.3.b.(3) above. Each Copermittee shall inspect high priority industrial sites, at a minimum:

i. Annually

OR

ii. Bi-annually for any site that the responsible Copermittee certifies in a written statement to the SDRWQCB all of the following (certified statements may be submitted to the SDRWQCB at any time for one or more sites):

- Copermittee has record of industrial site's Waste Discharge Identification Number (WDID#) documenting industrial site's coverage under the statewide General Industrial Permit; and
- Copermittee has reviewed the industrial site's Storm Water Pollution Prevention Plan (SWPPP); and
- Copermittee finds SWPPP to be in compliance with all local ordinances, permits, and plans; and
- Copermittee finds that the SWPPP is being properly implemented on site.

Each Copermittee shall inspect medium and low threat to water quality industrial sites as needed.

- (c) Based upon site inspection findings, each Copermittee shall implement all follow-up actions necessary to comply with this Order.
- (d) To the extent that the SDRWQCB has conducted an inspection of a high priority industrial site during a particular year, the requirement for the responsible Copermittee to inspect this site during the same year will be satisfied.

F.3.b.(7) Enforcement of Industrial Sites (Industrial)

Each Copermittee shall enforce its storm water ordinance at all industrial sites as necessary to maintain compliance with this Order. Copermittee ordinances or other regulatory mechanisms shall include sanctions to ensure compliance. Sanctions shall include the following or their equivalent: Non-monetary penalties, fines, bonding requirements, and/or permit denials for non-compliance.

F.3.b.(8) Reporting of Non-compliant Sites (Industrial)

Each Copermittee shall provide oral notification to the SDRWQCB of non-compliant sites that are determined to pose a threat to human or environmental health within its jurisdiction within 24 hours of the discovery of noncompliance, as required under section R.1 (and B.6 of Attachment C) of this Order.

Each Copermittee shall develop and submit criteria by which to evaluate events of non-compliance to determine whether they pose a threat to human or environmental health. These criteria shall be submitted in the Jurisdictional Urban Runoff Management Program Document and Annual Reports for SDRWQCB review.

Such oral notification shall be followed up by a written report to be submitted to the SDRWQCB within 5 days of the incidence of non-compliance as required under section R.1 (and B.6 of Attachment C) of this Order. Sites are considered non-compliant when one or more violations of local ordinances, permits, plans, or this Order exist on the site.

F.3.c. Commercial (Existing Development)

Each Copermittee shall implement a Commercial (Existing Development) Component to reduce pollutants in runoff from commercial sites. At a minimum the commercial component shall address:

- F.3.c.(1) Pollution Prevention
- F.3.c.(2) Source Identification
- F.3.c.(3) BMP Implementation
- F.3.c.(4) Inspection of Commercial Sites and Sources
- F.3.c.(5) Enforcement of Commercial Sites and Sources

F.3.c.(1) Pollution Prevention (Commercial)

Each Copermittee shall include and describe pollution prevention methods within its Commercial (Existing Development) Component. Each Copermittee shall require the use of pollution prevention methods by commercial facilities, where appropriate.

F.3.c.(2) Source Identification (Commercial)

Each Copermittee shall develop and update annually an inventory of the following high priority threat to water quality commercial sites/sources listed below. (If any commercial site/source listed below is inventoried as an industrial site, as required under section F.3.b.(2) of this Order, it is not necessary to also inventory it as a commercial site/source).

- (a) Automobile mechanical repair, maintenance, fueling, or cleaning;
- (b) Airplane mechanical repair, maintenance, fueling, or cleaning;
- (c) Boat mechanical repair, maintenance, fueling, or cleaning;
- (d) Equipment repair, maintenance, fueling, or cleaning;
- (e) Automobile and other vehicle body repair or painting;
- (f) Mobile automobile or other vehicle washing;
- (g) Automobile (or other vehicle) parking lots and storage facilities;
- (h) Retail or wholesale fueling;
- (i) Pest control services;
- (j) Eating or drinking establishments;
- (k) Mobile carpet, drape or furniture cleaning;
- (l) Cement mixing or cutting;
- (m) Masonry;
- (n) Painting and coating;
- (o) Botanical or zoological gardens and exhibits;
- (p) Landscaping;
- (q) Nurseries and greenhouses;
- (r) Golf courses, parks and other recreational areas/facilities;
- (s) Cemeteries;
- (t) Pool and fountain cleaning;
- (u) Marinas;
- (v) Port-a-Potty servicing;
- (w) Other commercial sites/sources that the Copermittee determines may contribute a significant pollutant load to the MS4;
- (x) Any commercial site or source tributary to a Clean Water Act section 303(d) impaired water body, where the site or source generates pollutants for which the water body is impaired; and
- (y) Any commercial site or source within or directly adjacent to or discharging directly to a coastal lagoon or other receiving water within an environmentally sensitive area (as defined in F.1.b(2)(a)vi. of this Order).

F.3.c.(3) BMP Implementation (Commercial)

- (a) Each Copermittee shall designate a set of minimum BMPs for the high priority threat to water quality commercial sites/sources (listed above in section F.3.c.(2)). The designated minimum BMPs for the high threat to water quality commercial sites/sources shall be site and source specific as appropriate.
- (b) Each Copermittee shall implement, or require the implementation of, the designated minimum BMPs at each high priority threat to water quality commercial site/source within its jurisdiction. If particular minimum BMPs are infeasible for any specific site/source, each Copermittee shall implement, or require the implementation of, other equivalent BMPs. Each Copermittee shall also implement or require any additional site specific BMPs as necessary to comply with this Order.
- (c) Each Copermittee shall implement, or require implementation of, additional controls for commercial sites or sources tributary to Clean Water Act section 303(d) impaired water bodies (where a site or source generates pollutants for which the water body is impaired) as necessary to comply with this Order. Each Copermittee shall implement, or require implementation of, additional controls for commercial sites or sources within or directly adjacent to or discharging directly to coastal lagoons or other receiving waters within environmentally sensitive areas (as defined in section F.1.b.(2)(a)vi. of this Order) as necessary to comply with this Order.

F.3.c.(4) Inspection of Commercial Sites and Sources (Commercial)

Each Copermittee shall inspect high priority commercial sites and sources as needed. Based upon site inspection findings, each Copermittee shall implement all follow-up actions necessary to comply with this Order.

F.3.c.(5) Enforcement of Commercial Sites and Sources (Commercial)

Each Copermittee shall enforce its storm water ordinance for all commercial sites and sources as necessary to maintain compliance with this Order.

F.3.d. Residential (Existing Development)

Each Copermittee shall implement a Residential (Existing Development) Component to prevent or reduce pollutants in runoff from all residential land use areas and activities. At a minimum the residential component shall address:

- | | |
|-----------|---|
| F.3.d.(1) | Pollution Prevention |
| F.3.d.(2) | Threat to Water Quality Prioritization |
| F.3.d.(3) | BMP Implementation |
| F.3.d.(4) | Enforcement of Residential Areas and Activities |

F.3.d.(1) Pollution Prevention (Residential)

Each Copermittee shall include pollution prevention methods in its Residential (Existing Development) Component and shall encourage their use by residents, where appropriate.

F.3.d.(2) Threat to Water Quality Prioritization (Residential)

Each Copermittee shall identify high priority residential areas and activities. At a minimum, these shall include:

- Automobile repair and maintenance;
- Automobile washing;
- Automobile parking;
- Home and garden care activities and product use (pesticides, herbicides, and fertilizers);
- Disposal of household hazardous waste (e.g., paints, cleaning products, and other wastes generated during home improvement or maintenance activities);
- Disposal of pet waste;
- Disposal of green waste;
- Any other residential source that the Copermittee determines may contribute a significant pollutant load to the MS4;
- Any residence tributary to a Clean Water Act section 303(d) impaired water body, where the residence generates pollutants for which the water body is impaired; and
- Any residence within or directly adjacent to or discharging directly to coastal waters or other receiving waters within an environmentally sensitive area (as defined in F.1.b.(2)(a)vi. of this Order).

F.3.d.(3) BMP Implementation (Residential)

- (a) Each Copermittee shall designate a set of minimum BMPs for high threat to water quality residential areas and activities (as required under section F.3.d.(2)). The designated minimum BMPs for high threat to water quality residential areas and activities shall be area or activity specific.
- (b) Each Copermittee shall implement or require implementation of the designated minimum BMPs for high threat to water quality residential areas and activities. If particular minimum BMPs are infeasible for any specific site/source, each Copermittee shall require implementation of other equivalent BMPs. Each Copermittee shall also implement, or require implementation of, any additional BMPs as are necessary to comply with this Order.
- (c) Each Copermittee shall implement, or require implementation of, any additional controls for residential areas and activities tributary to Clean Water Act Section 303(d) impaired water bodies (where a residential area or activity generates pollutants for which the water body is impaired) as necessary to comply with this Order. Each Copermittee shall implement, or require implementation of, additional controls for residential areas within or directly adjacent to or discharging directly to coastal waters or other receiving waters within environmentally sensitive areas (as defined in section F.1.b.(2)(a)vi. of this Order) as necessary to comply with this Order.

F.3.d.(4) Enforcement of Residential Areas and Activities (Residential)

Each Copermittee shall enforce its storm water ordinance for all residential areas and activities as necessary to maintain compliance with this Order.

F.4. Education Component

Each Copermittee shall implement an Education Component using all media as appropriate to (1) measurably increase the knowledge of the target communities regarding MS4s, impacts of urban runoff on receiving waters, and potential BMP solutions for the target audience; and (2) to measurably change the behavior of target communities and thereby reduce pollutant releases to MS4s and the environment. At a minimum the education component shall address the following target communities:

- Municipal Departments and Personnel

- Construction Site Owners and Developers
- Industrial Owners and Operators
- Commercial Owners and Operators
- Residential Community, General Public, and School Children
- Quasi-Governmental Agencies/Districts (i.e., educational institutions, water districts, sanitation districts, etc.)

F.4.a. All Target Communities

The Education Program for each target audience may contain information on the following topics where applicable:

- State and Federal water quality laws
- Requirements of local municipal permits and ordinances (e.g., storm water and grading ordinances and permits)
- Water conservation
- Impacts of urban runoff on receiving waters
- Watershed concepts (i.e., stewardship, connection between inland activities and coastal problems, etc.)
- Distinction between MS4s and sanitary sewers
- Importance of good housekeeping (e.g., sweeping impervious surfaces instead of hosing)
- Pollution prevention and safe alternatives
- Household hazardous waste collection
- Recycling
- BMPs: Site specific, structural and source control
- BMP maintenance
- Non-storm water disposal alternatives (e.g., all wash waters)
- Pet and animal waste disposal
- Proper solid waste disposal (e.g., garbage, tires, appliances, furniture, vehicles)
- Equipment and vehicle maintenance and repair
- Public reporting mechanisms
- Green waste disposal
- Integrated pest management
- Native vegetation
- Proper disposal of boat and recreational vehicle waste
- Traffic reduction, alternative fuel use

F.4.b. Municipal, Construction, Industrial, Commercial, and Quasi-Governmental (educational institutions, water districts, sanitation districts, etc.) Communities

In addition to the topics listed in F.4.a. above, the Municipal, Construction, Industrial, Commercial, and Quasi-Governmental (Educational Institutions, Water Districts, Sanitation Districts) Communities may also be educated on the following topics where applicable:

- Basic urban runoff training for all personnel
- Additional urban runoff training for appropriate personnel
- Illicit Discharge Detection and Elimination observations and follow-up during daily work activities
- Lawful disposal of catchbasin and other MS4 cleanout wastes
- Water quality awareness for Emergency/First Responders
- California's Statewide General NPDES Permit for Storm Water Discharges Associated with Industrial Activities (Except Construction).

- California's Statewide General NPDES Permit for Storm Water Discharges Associated with Construction Activities
- SDRWQCB's General NPDES Permit for Groundwater Dewatering
- 401 Water Quality Certification by the SDRWQCB
- Statewide General NPDES Utility Vault Permit (NPDES No. CAG990002)
- SDRWQCB Waste Discharge Requirements for Dredging Activities
- Local requirements beyond statewide general permits
- Federal, state and local water quality regulations that affect development projects
- Water quality impacts associated with land development
- Alternative materials & designs to maintain peak runoff values
- How to conduct a storm water inspection
- Potable water discharges to the MS4
- Dechlorination techniques
- Hydrostatic testing
- Spill response, containment, & recovery
- Preventive maintenance
- How to do your job and protect water quality

F.4.c. Residential, General Public, School Children Communities

In addition to the topics listed in F.4.a. above, the Residential, General Public, and School Children Communities may be educated on the following topics where applicable:

- Public reporting information resources
- Residential and charity car-washing
- Community activities (e.g., "Adopt a Storm Drain, Watershed, or Highway" Programs, citizen monitoring, creek/beach cleanups, environmental protection organization activities, etc.)

F.5. *Illicit Discharge Detection and Elimination Component*

Each Copermittee shall implement an Illicit Discharge Detection and Elimination Component containing measures to actively seek and eliminate illicit discharges and connections. At a minimum the Illicit Discharge Detection and Elimination Component shall address:

- F.5.a Illicit Discharges and Connections
- F.5.b Dry Weather Monitoring Program
- F.5.c Investigation / Inspection and Follow-up
- F.5.d Elimination of Illicit Discharges and Connections
- F.5.e Enforce Ordinances
- F.5.f Prevent and Respond To Sewage Spills (Including from Private Laterals and Failing Septic Systems) and Other Spills
- F.5.g Facilitate Public Reporting of Illicit Discharges and Connections – Public Hotline
- F.5.h Facilitate Disposal of Used Oil and Toxic Materials
- F.5.i Limit Infiltration From Sanitary Sewer to MS4

F.5.a. Illicit Discharges and Connections

Each Copermittee shall implement a program to actively seek and eliminate illicit discharges and connections into its MS4. The program shall address all types of illicit discharges and connections excluding those non-storm water discharges not prohibited by the Copermittee in accordance with Section B. of this Order.

F.5.b. Dry Weather Monitoring Program

Each Copermittee shall conduct dry weather inspections, field screening, and analytical monitoring of MS4 outfalls within its jurisdiction to detect illicit discharges and connections in accordance with Attachment E of this Order.

F.5.c. Investigation / Inspection and Follow-Up

Each Copermittee shall investigate and inspect any portion of the MS4 that, based on dry weather monitoring results or other appropriate information, indicates a reasonable potential for illicit discharges, illicit connections, or other sources of non-storm water (including non-prohibited discharge(s) identified in Section B. of this Order). Each Copermittee shall establish criteria to identify portions of the system where such follow-up investigations are appropriate.

F.5.d. Elimination of Illicit Discharges and Connections

Each Copermittee shall eliminate all detected illicit discharges, discharge sources, and connections immediately.

F.5.e. Enforce Ordinances

Each Copermittee shall implement and enforce its ordinances, orders, or other legal authority to prevent illicit discharges and connections to its MS4. Each Copermittee shall also implement and enforce its ordinance, orders, or other legal authority to eliminate detected illicit discharges and connections to it MS4.

F.5.f. Prevent and Respond to Sewage Spills (Including from Private Laterals and Failing Septic Systems) and Other Spills

Each Copermittee shall prevent, respond to, contain and clean up all sewage and other spills that may discharge into its MS4 from any source (including private laterals and failing septic systems). Spill response teams shall prevent entry of spills into the MS4 and contamination of surface water, ground water and soil to the maximum extent practicable. Each Copermittee shall coordinate spill prevention, containment and response activities throughout all appropriate departments, programs and agencies to ensure maximum water quality protection at all times.

Each Copermittee shall develop and implement a mechanism whereby it is notified of all sewage spills from private laterals and failing septic systems into its MS4. Each Copermittee shall prevent, respond to, contain and clean up sewage from any such notification.

F.5.g. Facilitate Public Reporting of Illicit Discharges and Connections - Public Hotline

Each Copermittee shall promote, publicize and facilitate public reporting of illicit discharges or water quality impacts associated with discharges into or from MS4s. Each Copermittee shall facilitate public reporting through development and operation of a public hotline. Public hotlines can be Copermittee-specific or shared by Copermittees. All storm water hotlines shall be capable of receiving reports in both English and Spanish 24 hours per day / seven days per week. Copermittees shall respond to and resolve each reported incident. All reported incidents, and how each was resolved, shall be summarized in each Copermittee's individual Jurisdictional URMP Annual Report.

F.5.h. Facilitate Disposal of Used Oil and Toxic Materials

Each Copermittee shall facilitate the proper management and disposal of used oil, toxic materials, and other household hazardous wastes. Such facilitation shall include educational

activities, public information activities, and establishment of collection sites operated by the Copermittee or a private entity. Neighborhood collection of household hazardous wastes is encouraged.

F.5.i. Limit Infiltration From Sanitary Sewer to MS4/ Provide Preventive Maintenance of Both

Each Copermittee shall implement controls and measures to limit infiltration of seepage from municipal sanitary sewers to MS4s through thorough, routine preventive maintenance of the MS4. Each Copermittee that operates both a municipal sanitary sewer system and a MS4 shall implement controls and measures to limit infiltration of seepage from the municipal sanitary sewers to the MS4s that shall include overall sanitary sewer and MS4 surveys and thorough, routine preventive maintenance of both.

F.6. Common Interest Areas and Homeowners Associations

- a. Each Copermittee shall develop and implement a plan for ensuring that urban runoff within common interest areas from private roads, drainage facilities, and other components of the storm water conveyance system, including those managed by associations, meets the objectives of this Order.
- b. As part of its individual Jurisdictional URMP Annual Report, each Copermittee shall describe the measures taken to ensure that urban runoff from common interest areas to the MS4 meets the objectives of this Order.

F.7. Public Participation Component

Each Copermittee shall incorporate a mechanism for public participation in the implementation of the Jurisdictional URMP.

F.8. Assessment of Jurisdictional URMP Effectiveness Component

- a. As part of its individual Jurisdictional URMP, each Copermittee shall develop a long-term strategy for assessing the effectiveness of its individual Jurisdictional URMP. The long-term assessment strategy shall identify specific direct and indirect measurements that each Copermittee will use to track the long-term progress of its individual Jurisdictional URMP towards achieving improvements in receiving water quality. Methods used for assessing effectiveness shall include the following or their equivalent: surveys, pollutant loading estimations, and receiving water quality monitoring. The long-term strategy shall also discuss the role of monitoring data in substantiating or refining the assessment.
- b. As part of its individual Jurisdictional URMP Annual Report, each Copermittee shall include an assessment of the effectiveness of its Jurisdictional URMP using the direct and indirect assessment measurements and methods developed in its long-term assessment strategy.

F.9. Fiscal Analysis Component

Each Copermittee shall secure the resources necessary to meet the requirements of this Order. As part of its individual Jurisdictional URMP, each Copermittee shall develop a strategy to conduct a fiscal analysis of its urban runoff management program in its entirety. In order to demonstrate sufficient financial resources to implement the conditions of this Order, each Copermittee shall conduct an annual fiscal analysis as part of its individual Jurisdictional URMP Annual Report. This analysis shall, for each fiscal year covered by this Order, evaluate the expenditures (such as capital, operation and maintenance, education, and administrative expenditures) necessary to accomplish the activities of the Copermittee's urban runoff management program. Such analysis shall include a description of the source(s) of funds that are proposed to meet the necessary expenditures, including legal restrictions on the use of such funds.

G. IMPLEMENTATION OF JURISDICTIONAL URMP

Each Copermittee shall have completed full implementation of all requirements of the Jurisdictional URMP section of this Order no later than **365 days after adoption** of this Order, except as stated as follows: Within 180 days of development of the model SUSMP, each Copermittee shall adopt its own local SUSMP, and amended ordinances consistent with the model SUSMP, and shall submit both (local SUSMP and amended ordinances) to the SDRWQCB.

Following the adoption of the Order and prior to the full implementation of the Jurisdictional URMP, the Copermittees shall at a minimum implement the provisions and commitments of the proposed DAMP submitted in September 2000.

H. SUBMITTAL OF JURISDICTIONAL URMP DOCUMENT

The written account of the overall program to be conducted by each Copermittee within its jurisdiction during the five-year life of this Order is referred to as the "Jurisdictional URMP Document".

1. Individual – Each Copermittee shall submit to the Principal Permittee(s) an individual Jurisdictional URMP document which describes all activities it has undertaken or is undertaking to implement the requirements of each component of the Jurisdictional URMP section F. of this Order.

a. At a minimum, the individual Jurisdictional URMP document shall contain the following information for the following components:

(1) Construction Component

- (a) Which pollution prevention methods will be required for implementation, and how and where they will be required
- (b) Updated grading ordinances
- (c) A description of the modified construction and grading approval process
- (d) Updated construction and grading project requirements in local grading and construction permits
- (e) A completed watershed-based inventory of all construction sites
- (f) A completed prioritization of all construction sites based on threat to water quality
- (g) Which BMPs will be implemented, or required to be implemented, for each priority category
- (h) How BMPs will be implemented, or required to be implemented, for each priority category
- (i) Planned inspection frequencies for each priority category
- (j) Methods for inspection
- (k) A description of enforcement mechanisms and how they will be used
- (l) A description of how non-compliant sites will be identified and the process for notifying the SDRWQCB, including a list of current non-compliant sites
- (m) A description of the construction education program and how it will be implemented

(2) Municipal (Existing Development) Component

- (a) Which pollution prevention methods will be required for implementation, and how and where they will be required
- (b) A completed watershed-based inventory of all municipal land use areas and activities
- (c) A completed prioritization of all municipal areas and activities based on threat to water quality
- (d) Which BMPs will be implemented, or required to be implemented, for each priority category
- (e) How BMPs will be implemented, or required to be implemented, for each priority category

- (f) Municipal maintenance activities and schedules
 - (g) Management strategy for pesticides, herbicides, and fertilizer use.
 - (h) Planned inspection frequencies for the high priority category
 - (i) Methods for inspection
 - (j) A description of enforcement mechanisms and how they will be used
- (3) Industrial (Existing Development) Component
- (a) Which pollution prevention methods will be required for implementation, and how and where they will be required
 - (b) A completed watershed-based inventory of all industrial sites
 - (c) A completed prioritization of all industrial sites based on threat to water quality
 - (d) Which BMPs will be implemented, or required to be implemented, for each priority category
 - (e) How BMPs will be implemented, or required to be implemented, for each priority category
 - (f) A description of the monitoring program to be conducted, or required to be conducted
 - (g) Planned inspection frequencies for each priority category
 - (h) Methods for inspection
 - (i) A description of enforcement mechanisms and how they will be used
 - (j) A description of how non-compliant sites will be identified and the process for notifying the SDRWQCB, including a list of current non-compliant sites
- (4) Commercial (Existing Development) Component
- (a) Which pollution prevention methods will be required for implementation, and how and where they will be required
 - (b) A completed watershed-based inventory of high priority commercial sites
 - (c) Which BMPs will be implemented, or required to be implemented, for high priority sites
 - (d) How BMPs will be implemented, or required to be implemented, for high priority sites
 - (e) Planned inspection frequencies for high priority sites
 - (f) Methods for inspection
 - (g) A description of enforcement mechanisms and how they will be used
- (5) Residential (Existing Development) Component
- (a) Which pollution prevention methods will be encouraged for implementation, and how and where they will be encouraged
 - (b) A completed inventory of high priority residential areas and activities
 - (c) Which BMPs will be implemented, or required to be implemented, for high priority areas and activities
 - (d) How BMPs will be implemented, or required to be implemented, for high priority areas and activities
 - (e) A description of enforcement mechanisms and how they will be used
- (6) Education Component
- (a) A description of the content, form, and frequency of education efforts for each target community
- (7) Illicit Discharges Detection and Elimination Component
- (a) A description of the program to actively seek and eliminate illicit discharges and connections

- (b) A description of dry weather monitoring to be conducted to detect illicit discharges and connections (see Attachment E)
 - (c) A description of investigation and inspection procedures to follow-up on dry weather monitoring results or other information which indicate potential for illicit discharges and connections
 - (d) A description of procedures to eliminate detected illicit discharges and connections
 - (e) A description of enforcement mechanisms and how they will be used
 - (f) A description of methods to prevent, respond to, contain, and clean up all sewage (including spills from private laterals and failing septic systems) and other spills in order to prevent entrance into the MS4
 - (g) A description of the mechanism to receive notification of spills from private laterals
 - (h) A description of efforts to facilitate public reporting of illicit discharges and connections, including a public hotline
 - (i) A description of efforts to facilitate proper disposal of used oil and other toxic materials
 - (j) A description of controls and measures to be implemented to limit infiltration of seepage from sanitary sewers to MS4s
 - (k) A description of routine preventive maintenance activities on the sanitary system (where applicable) and the MS4
- (8) Public Participation Component
- (a) A description of how public participation will be included in the implementation of the Jurisdictional URMP
- (9) Assessment of Jurisdictional URMP Effectiveness Component
- (a) A description of strategies to be used for assessing the long-term effectiveness of the individual Jurisdictional URMP.
- (10) Fiscal Analysis Component
- (a) A description of the strategy to be used to conduct a fiscal analysis of the urban runoff management program.
- (11) Land-Use Planning for New Development and Redevelopment Component
- (a) Workplan for inclusion in General Plan (or equivalent plan) of water quality and watershed protection principles and policies
 - (b) Development project requirements in local development permits
 - (c) Participation efforts conducted in the development of the Model SUSMP
 - (d) Environmental review processes revisions
 - (e) A description of the planning education program and how it will be implemented
- (12) Fire Fighting
- (a) A description of a program to reduce pollutants from non-emergency fire fighting flows identified by the Copermittee to be significant sources of pollutants.
- (13) Common Interest Areas and Homeowners Associations
- (a) A description of the program that will be implemented to ensure that urban runoff within common interest areas from private roads, drainage facilities, and other components of the storm water conveyance system including those managed by associations meets the objectives of this Order.

- b. Each Copermittee shall submit to the Principal Permittee(s) each part of its individual Jurisdictional URMP document by the dates specified by the Principal Permittee(s).
 - c. In addition to submittal of the Jurisdictional URMP document, each Copermittee shall submit to the SDRWQCB its own adopted local SUSMP consistent with the submitted Model SUSMP, as described in section F.1.b.(2). of this Order. Each Copermittee's own local SUSMP, along with its amended ordinances, shall be submitted to the SDRWQCB within 180 days of the submittal of the Model SUSMP to the SDRWQCB.
2. Unified – The Principal Permittee(s) shall submit the unified Jurisdictional URMP document to the SDRWQCB. The unified Jurisdictional URMP document shall be submitted in two parts (the collected Jurisdictional URMPs and the model SUSMP).
- a. The unified Jurisdictional URMP document submittal shall address the requirements of the entire Jurisdictional URMP sections F.1 - F.9. of this Order, with the exception of the local SUSMP requirements (which are to be implemented 180 days after submittal of the model SUSMP by the SDRWQCB).
 - b. The unified Jurisdictional URMP document submittal shall contain a section covering common activities conducted collectively by the Copermittees including jointly developed reporting formats (section O.4), to be produced by the Principal Permittee(s), and the thirteen individual Jurisdictional URMP documents.
 - c. The Principal Permittee(s) shall be responsible for the development and production of a stand alone Model SUSMP document meeting the requirements of section F.1.b.(2) of this Order.
 - d. The Principal Permittee(s) shall submit the unified Jurisdictional URMP document, including the Model SUSMP, to the SDRWQCB within **365 days of adoption** of this Order.
3. Universal Reporting Requirements

All individual and unified Jurisdictional URMP document submittals shall include an executive summary, introduction, conclusion, recommendations, and signed certified statement. Each Copermittee shall submit its individual Jurisdictional Urban Runoff Management Program Document with a signed certified statement. The Principal Permittee(s) shall submit a signed certified statement referring to its individual Jurisdictional Urban Runoff Management Program Document, the section covering common activities conducted collectively by the Copermittees, and the Model SUSMP document meeting the requirements of section F.1.b.(2) of this Order as produced by the Principal Permittee(s).

I. SUBMITTAL OF JURISDICTIONAL URMP ANNUAL REPORT

1. Individual - Each individual Jurisdictional URMP Annual Report shall be a documentation of the activities conducted by each Copermittee during the past annual reporting period. Each Jurisdictional URMP Annual Report shall, at a minimum, contain the following:
 - a. Comprehensive description of all activities conducted by the Copermittee to meet all requirements of each component of the Jurisdictional URMP section of this Order;
 - F.1. Land-Use Planning for New Development and Redevelopment Component
 - F.2. Construction Component
 - F.3. Existing Development Component (Including Municipal, Industrial, Commercial, Residential, and Education)
 - F.4. Education Component
 - F.5. Illicit Discharge Detection and Elimination Component
 - F.6. Common Interest Areas and Homeowners Associations

- F.7. Public Participation Component
- F.8. Assessment of Jurisdictional URMP Effectiveness Component
- F.9. Fiscal Analysis Component

- b. Each Copermittee's accounting of all:
 - (1) Reports of illicit discharges (i.e., complaints) and how each was resolved (indicating referral source);
 - (2) Inspections conducted;
 - (3) Enforcement actions taken; and
 - (4) Education efforts conducted.
 - c. Public participation mechanisms utilized during the Jurisdictional URMP implementation process;
 - d. Proposed revisions to the Jurisdictional URMP;
 - e. A summary of all urban runoff related data not included in the annual monitoring report (e.g., special investigations);
 - f. Budget for upcoming year;
 - g. Identification of management measures proven to be ineffective in reducing urban runoff pollutants and flow; and
 - h. Identification of water quality improvements or degradation.
2. Unified - The unified Jurisdictional URMP Annual Report shall contain a section covering common activities conducted collectively by the Copermittees, to be produced by the Principal Permittee(s), and the thirteen individual Jurisdictional URMP Annual Reports. Each Copermittee shall submit to the Principal Permittee(s) an individual Jurisdictional URMP Annual Report by the date specified by the Principal Permittee(s). The Principal Permittee(s) shall submit a unified Jurisdictional URMP Annual Report to the SDRWQCB prior to **November 9, 2003 and prior to every November 9th thereafter**. The reporting period for these annual reports shall be the previous fiscal year. For example, the report submitted prior to November 9, 2003 shall cover the reporting period July 1, 2002 to June 30, 2003.
3. Universal Reporting Requirements

All individual and unified Jurisdictional URMP submittals shall include an executive summary, introduction, conclusion, recommendations, and signed certified statement. Each Copermittee shall submit its individual Jurisdictional Urban Runoff Management Program Annual Report with a signed certified statement. The Principal Permittee(s) shall submit a signed certified statement referring to its individual Jurisdictional Urban Runoff Management Program Annual Report and the section covering common activities conducted collectively by the Copermittees as produced by the Principal Permittee(s).

J. WATERSHED URBAN RUNOFF MANAGEMENT PROGRAM

- 1. Each Copermittee shall collaborate with other Copermittees to identify, address, and mitigate the highest priority water quality issues/pollutants in the six (Table 4) watersheds in the San Juan Creek Watershed Management Area.
- 2. Each Copermittee shall collaborate with all other Copermittees discharging urban runoff into the same watershed to develop and implement a Watershed Urban Runoff Management Program (Watershed URMP) for the six watersheds in the San Juan Creek Watershed Management Area.

The Watershed URMP shall, at a minimum contain the following:

- a. An accurate map of the watersheds of the San Juan Creek Watershed Management Area in Orange County (preferably in Geographical Information System [GIS] format) that identifies all receiving waters (including the Pacific Ocean); all Clean Water Act section 303(d) impaired receiving waters (including the Pacific Ocean); existing and planned land uses; MS4s, major highways; jurisdictional boundaries; and inventoried commercial, construction, industrial, municipal sites, and residential areas.
- b. An assessment of the water quality of all receiving waters in the watershed based upon (1) existing water quality data; and (2) annual dry weather monitoring that satisfies requirements of section F.5 and Attachment E of this Order; and (3) watershed receiving water quality monitoring that satisfies the watershed monitoring requirements of Attachment B;
- c. An identification and prioritization of major water quality problems in the watershed caused or contributed to by MS4 discharges and the likely source(s) of the problem(s);
- d. An implementation time schedule of short and long-term recommended activities (individual and collective) needed to address the highest priority water quality problem(s) identified in section J.2.c of this Order. For this section, "short-term activities" shall mean those activities that are to be completed during the life of this Order and "long-term activities" shall mean those activities that are to be completed beyond the life of this Order;
- e. A mechanism for public participation throughout the entire watershed URMP process;
- f. A watershed-based education program that builds on and expands upon the education activities conducted by each Copermittee in a given watershed and that can focus on water quality issues specific to that watershed;
- g. A mechanism to facilitate collaborative "watershed-based" (i.e., natural resource-based) land use planning with neighboring local governments in the watershed.
- h. Short-term strategy for assessing the effectiveness of the activities and programs implemented under the Watershed URMP. The short term assessment strategy shall identify methods to assess the Watershed URMP effectiveness and include specific direct and indirect performance measurements that will track the immediate progress and accomplishments of the Watershed URMP towards improving receiving water quality impacted by urban runoff discharges. The short-term strategy shall also discuss the role of monitoring data collected by the Copermittees in substantiating or refining the assessment.
- i. Long-term strategy for assessing the effectiveness of the Watershed URMP. The long-term assessment strategy shall identify specific direct and indirect performance measurements that will track the long-term progress of Watershed URMP towards achieving improvements in receiving water quality impacted by urban runoff discharges. Methods used for assessing effectiveness shall include the following or their equivalent: surveys, pollutant loading estimations, and receiving water quality monitoring. The long-term strategy shall also discuss the role of monitoring data in substantiating or refining the assessment.

Table 4. Orange County Copermittees by Watershed
for the San Juan Creek Watershed Management Area

Watershed	Major Receiving Water Bodies⁸	Copermittees
Orange County Coastal Streams - Laguna	Moro Canyon Creek Emerald Canyon Creek Laguna Canyon Creek Blue Bird Canyon Creek Rim Rock Canyon Creek Hobo Canyon Creek	County of Orange Laguna Beach Laguna Woods Orange County Flood Control District Aliso Viejo
Aliso Creek	Aliso Creek English Canyon Creek Sulphur Canyon Creek Wood Canyon Creek	Aliso Viejo Laguna Beach Laguna Hills Laguna Niguel Laguna Woods Lake Forest Mission Viejo County of Orange Orange County Flood Control District
Dana Point Coastal Streams	Salt Creek Arroyo Salada Creek San Juan Canyon	Dana Point Laguna Niguel Orange County Flood Control District
San Juan Creek	San Juan Creek Trampas Canyon Creek Canada Gobernadora Canada Chiquita Horno Creek Arroyo Trabuco Creek Tijeras Canyon Creek Live Oak Canyon Creek Oso Creek La Paz Creek Lucas Canyon Creek Verdugo Canyon Creek Bell Canyon Creek Dove Canyon Creek Crow Canyon Creek	San Juan Capistrano Mission Viejo Laguna Hills Laguna Niguel Dana Point Rancho Santa Margarita County of Orange Orange County Flood Control District San Clemente
Orange County Coastal Streams - San Clemente	Prima Deshecha Canada Segunda Deshecha Canada	San Clemente San Juan Capistrano County of Orange Orange County Flood Control District Dana Point
San Mateo Creek	Christianitos Creek Gambino Canyon Creek La Paz Canyon Creek Talega Canyon Creek	San Clemente County of Orange Orange County Flood Control District

⁸ Indented water bodies are tributary to the above water body.

K. IMPLEMENTATION OF WATERSHED URMP

Each Copermittee shall implement all requirements of the Watershed URMP section of this Order by August 13, 2003 unless otherwise specified. Following the adoption of the Order and prior to the full implementation of the Watershed URMP, the Copermittees shall at a minimum collectively implement the provisions and commitments of the proposed DAMP submitted in September 2000.

L. SUBMITTAL OF WATERSHED URMP DOCUMENT

The written account of the overall watershed program to be conducted by each Copermittee during the remaining life of this Order is referred to as the "Watershed URMP Document". The Watershed URMP is conducted concurrently with the Jurisdictional URMP.⁹

1. The Watershed URMP document shall state how the member Copermittees within each watershed will develop and implement the requirements of the Watershed URMP section J. of this Order. The Watershed URMP document shall include:
 - (1) A completed watershed map
 - (2) A water quality assessment of the San Juan Creek Watershed Management Area within Orange County and watershed monitoring needed
 - (3) Prioritization of water quality problems within Orange County in the San Diego Region
 - (4) Recommended activities (short and long term) to be conducted jointly by the Copermittees and a timeline for implementation
 - (5) Individual Copermittee implementation responsibilities and time schedules for implementation
 - (6) A description of watershed public participation mechanisms
 - (7) A description of watershed education mechanisms
 - (8) A description of the mechanism and implementation schedule for watershed-based land use planning
 - (9) A strategy for assessing the short-term effectiveness of the Watershed URMP
 - (10) A strategy for assessing the long-term effectiveness of the Watershed URMP
 - (11) A program to address common interest areas and homeowners associations
2. The Principal Permittee(s) shall submit the Watershed URMP document to the SDRWQCB by August 13, 2003.
3. Universal Reporting Requirements.

All Watershed URMP submittals shall include an executive summary, introduction, conclusion, recommendations, and signed certified statement. Each Copermittee shall submit a signed certified statement covering its responsibilities in the Watershed URMP Document. The Principal Permittee(s) shall submit a signed certified statement referring to its responsibilities in the Watershed URMP Document and the section covering common activities conducted collectively by the Copermittees as produced by the Principal Permittee(s).

⁹As the Copermittees jointly revise and implement the submitted proposed DAMP and each Copermittee revises and implements its jurisdictional level program to satisfy the requirements of this Order, it is expected that many activities will be conducted on both a jurisdictional level (e.g., enforcement of local ordinances and permits) and a watershed level. Implementation of the Watershed URMP is not meant to replace, but to expand and complement implementation of the Jurisdictional URMP. For this reason, it is necessary to report management activities on both levels. This can be accomplished either by submitting both a Jurisdictional URMP Annual Report and a Watershed URMP Annual Report or by submitting a single Watershed URMP Annual Report that contains two separate sections (i.e., watershed activities and jurisdictional activities). Information need only be reported once (to the extent something is covered in the Watershed URMP Annual Report, it need not be covered again in the Jurisdictional URMP Annual Report).

M. SUBMITTAL OF WATERSHED URMP ANNUAL REPORT

1. Each Watershed URMP Annual Report shall be a documentation of the activities conducted by watershed member Copermittees during the previous annual reporting period to meet the requirements of all components of the Watershed URMP section of this Order. Each Watershed URMP Annual Report shall, at a minimum, contain the following:
 - a. Comprehensive description of all activities conducted by the watershed member Copermittees to meet all requirements of each component of Watershed URMP section J. of this Order
 - b. A section covering common activities conducted collectively by the Copermittees, to be produced by the Principal Permittee(s)
 - c. Public participation mechanisms utilized during the Watershed URMP implementation process;
 - d. Mechanism for watershed-based land use planning;
 - e. Assessment of effectiveness of Watershed URMP;
 - f. Proposed revisions to the Watershed URMP;
 - g. A summary of watershed effort related data not included in the annual monitoring report (e.g., special investigations); and
 - h. Identification of water quality improvements or degradation.
2. The Principal Permittee(s) shall submit the Watershed URMP Annual Report to the SDRWQCB prior to November 9, 2004 and prior to every November 9th thereafter. The reporting period for these annual reports shall be the previous fiscal year. For example, the report submitted prior to November 9, 2004 shall cover the reporting period July 1, 2003 to June 30, 2004.
3. Universal Reporting Requirements

All Watershed URMP submittals shall include an executive summary, introduction, conclusion, recommendations, and signed certified statement. Each Copermittee shall submit a signed certified statement covering its responsibilities in the Watershed URMP Annual Report. The Principal Permittee(s) shall submit a signed certified statement referring to its responsibilities in the Watershed URMP Annual Report and the section covering common activities conducted collectively by the Copermittees as produced by the Principal Permittee(s).

N. PROGRAM MANAGEMENT

1. The Copermittees shall implement the Program Management activities and commitments as described in section 2 (Program Management) of the proposed DAMP.

O. PRINCIPAL PERMITTEE RESPONSIBILITIES

Within 90 days of adoption of this Order, the Copermittees shall designate the Principal Permittee(s) and notify the SDRWQCB of the name(s) of the Principal Permittee(s). The Principal Permittee(s) may require the Copermittees to reimburse the Principal Permittee(s) for reasonable costs incurred while performing coordination responsibilities and other related tasks. The Principal Permittee(s) shall, at a minimum:

1. Be responsible for implementing or coordinating the implementation of the Program Management activities and commitments described in section 2 (Program Management) of the proposed DAMP.
2. Serve as liaison(s) between the Copermittees and the SDRWQCB on general permit issues.
3. Coordinate permit activities among the Copermittees and facilitate collaboration on the development and implementation of programs required under this Order;

4. Coordinate the joint development by all of the Copermittees of standardized format(s) for all reports required under this Order (e.g., annual reports, monitoring reports, fiscal analysis reports, and program effectiveness reports, etc.). The standardized reporting format(s) shall be used by all Copermittees and shall include protocols for electronic reporting. The Principal Permittee(s) shall submit the standardized format(s) to the SDRWQCB as part of the unified Jurisdictional URMP document no later than **365 days after adoption** of this Order.
5. Integrate individual Copermittee documents and reports required under this Order into single unified documents and reports for submittal to the SDRWQCB as described below. If a reporting date falls on a non-working day or State holiday, then the report is to be submitted on the following working day.
 - a. Unified Jurisdictional URMP Document – The Principal Permittee(s) shall submit the unified Jurisdictional URMP document in its entirety (including the model SUSMP) to the SDRWQCB within 365 days of the adoption of this Order.

The Principal Permittee(s) shall be responsible for producing the sections of the unified Jurisdictional URMP document submittals covering common activities conducted by the Copermittees. The Principal Permittee(s) shall be responsible for the development and production of a stand alone Model SUSMP document meeting the requirements of section F.1.b.(2). of this Order. The Principal Permittee(s) shall also be responsible for collecting and assembling the individual Jurisdictional URMP document submittals covering the activities conducted by each individual Copermittee.

- b. Unified Jurisdictional URMP Annual Reports – The Principal Permittee(s) shall submit unified Jurisdictional URMP Annual Reports to the SDRWQCB prior to November 9th of each year, beginning on **November 9, 2003**. The reporting period for these annual reports shall be the previous fiscal year. For example, the report submitted prior to November 9, 2003 shall cover the reporting period July 1, 2002 to June 30, 2003.

The Principal Permittee(s) shall be responsible for producing the section of the unified Jurisdictional URMP Annual Reports covering common activities conducted by the Copermittees. The Principal Permittee(s) shall also be responsible for collecting and assembling the individual Jurisdictional URMP Annual Reports covering the activities conducted by each individual Copermittee.

- c. Watershed URMP Document – The Principal Permittee(s) shall prepare and submit the Watershed URMP document to the SDRWQCB by **August 13, 2003** .
 - d. Watershed URMP Annual Report - The Principal Permittee(s) shall prepare and submit the Watershed URMP Annual Reports to the SDRWQCB prior to November 9th of each year, beginning on **November 9, 2004**. The reporting period for these annual reports shall be the previous fiscal year. For example, the report submitted prior to November 9, 2004 shall cover the reporting period July 1, 2003 to June 30, 2004.
 - e. Receiving Waters Monitoring and Reporting Program - The Principal Permittee(s) shall be responsible for the production and submittal of the Previous Monitoring and Future Recommendations Report. The report shall be submitted to the SDRWQCB within 180 days of adoption of this Order.
 - f. Receiving Waters Monitoring and Reporting Program - The Principal Permittee(s) shall be responsible for the development and production of the Receiving Waters Monitoring Program as it is outlined in Attachment B. The Principal Permittee(s) shall submit the Receiving Waters Monitoring Program to the SDRWQCB within 180 days of adoption of this Order.

- g. Receiving Waters Monitoring and Reporting Program – The Principal Permittee(s) shall be responsible for coordinating the joint development by all of the Copermittees of monitoring reporting formats (Section O.4) and for implementing the Receiving Waters Monitoring Program as outlined in Attachment B by August 13, 2002.
- h. Receiving Waters Monitoring and Reporting Program - The Principal Permittee(s) shall submit the Receiving Waters Monitoring Annual Report to the SDRWQCB prior to November 9th of each year, beginning on November 9, 2003.
- i. Formal Agreements/Standardized Formats - The Principal Permittee(s) shall submit to the SDRWQCB, within 365 days of adoption of this Order, a formal agreement between the Copermittees which provides a management structure for meeting the requirements of this Order (as described in section N.1.). The Principal Permittee(s) shall submit to the SDRWQCB, within 365 days of adoption of this Order, standardized formats for all reports and documents required under this Order.
- j. Dry Weather Monitoring - The Principal Permittee(s) shall collectively submit the Copermittees' dry weather monitoring maps and procedures to the SDRWQCB within 365 days of adoption of this Order.

P. RECEIVING WATERS MONITORING AND REPORTING PROGRAM

1. Pursuant to California Water Code section 13267, each Copermittee shall comply with the Receiving Waters Monitoring and Reporting Program for Order No. R9-2002-0001 contained in **Attachment B** of this Order.
2. Each Copermittee shall also comply with standard provisions, reporting requirements, and notifications contained in **Attachment C** of this Order.

Q. TASKS AND SUBMITTAL SUMMARY

The tasks and submittals required under this Order are summarized in Tables 5 and 6 below:

Table 5. Task Summary

Task No.	Task	Permit Section	Completion Date	Frequency
1	Identify discharges not to be prohibited and BMPs required for treatment of discharges not prohibited	B.3.	365 days after adoption of Order	One Time
2	Examine field screening results to identify water quality problems resulting from non-prohibited non-storm water discharges, including follow-up of problems	B.5.	Prior to November 9, 2003	Annually
3	Notify SDRWQCB of discharges causing or contributing to an exceedance of water quality standards	C.2.a.	Immediate	As Needed
4	Establish adequate legal authority to control pollutant discharges into and from MS4	D.1.	365 days after adoption of Order	One Time
5	Assess General Plan to incorporate water quality and watershed protection principles	F.1.a.	365 days after adoption of Order	One Time
6	Include Development Project Requirements in local permits	F.1.b.(1).	365 days after adoption of Order	One Time
7	Develop Model SUSMP	F.1.b.(2).	365 days after adoption of Order	One Time
8	Develop and adopt individual local SUSMP and amended ordinances	F.1.b.(2).	180 days after development of Model SUSMP	One Time
9	Implement individual jurisdictional SUSMP	F.1.b.(2).	180 days after submittal of Model SUSMP to SDRWQCB	Continuous

Task No.	Task	Permit Section	Completion Date	Frequency
10	Revise environmental review processes	F.1.c.(1).	365 days after adoption of Order	One Time
11	Conduct education program for municipal planning and development review staff, project applicants, developers, contractors, community planning groups, and property owners	F.1.d.(1). And F.1.d.(2).	365 days after adoption of Order	Ongoing
12	Implement all requirements of Construction Component of Jurisdictional URMP	F.2.a. – F.2.j.	365 days after adoption of Order	Ongoing
13	Notify SDRWQCB of non-compliant construction sites that pose a threat to human or environmental health	F.2.i.	Within 24 hours of discovery of noncompliance	As Needed
14	Implement all requirements of Municipal Existing Development Component of Jurisdictional URMP	F.3.a.(1). – F.3.a.(8).	365 days after adoption of Order	Ongoing
15	Implement all requirements of Industrial Existing Development Component of Jurisdictional URMP	F.3.b.(1) – F.3.b.(8)	365 days after adoption of Order	Ongoing
16	Notify SDRWQCB of non-compliant industrial sites that pose a threat to human or environmental health	F.3.b.8.	Within 24 hours of discovery of noncompliance	As Needed
17	Implement all requirements of Commercial Existing Development Component of Jurisdictional URMP	F.3.c.(1) – F.3.c.(5)	365 days after adoption of Order	Ongoing
18	Implement all requirements of Residential Existing Development Component of Jurisdictional URMP	F.3.d.(1) – F.3.d.(4)	365 days after adoption of Order	Ongoing
19	Implement all requirements of Education Component of Jurisdictional URMP	F.4.a. – F.4.c.	365 days after adoption of Order	Ongoing
20	Implement all requirements of Illicit Discharge Detection and Elimination Component of Jurisdictional URMP	F.5.a. – F.5.i.	365 days after adoption of Order	Ongoing
21	Develop a plan to manage urban runoff from common interest areas, private roads, drainage facilities, and other components of the storm water conveyance system, including those managed by homeowners associations.	F.6.	365 days after adoption of Order	One Time
22	Implement all requirements of Public Participation Component of Jurisdictional URMP	F.7.	365 days after adoption of Order	Ongoing
23	Develop strategy for assessment of Jurisdictional URMP effectiveness	F.8.a.	365 days after adoption of Order	One Time
24	Assess Jurisdictional URMP effectiveness	F.8.b.	Prior to November 9, 2003	Annually
25	Develop strategy for fiscal analysis of urban runoff management program	F.9.	365 days after adoption of Order	One Time
26	Conduct fiscal analysis of urban runoff management program in entirety	F.9.	Prior to November 9, 2003	Annually
27	Develop and implement Watershed URMP	J.2.	August 13, 2003	Ongoing
28	Implement Program Management activities and commitments in proposed DAMP	N.1.	Immediately	Ongoing
29	Develop standardized formats for all required reports of this Order	O.4.	365 days after adoption of Order	One Time
30	Develop Receiving Waters Monitoring Document	Attachment B	180 days after adoption of Order	One Time
31	Implement Receiving Waters Monitoring Program	Attachment B	180 days after adoption of Order	Continuous
32	Develop Dry Weather Monitoring Program Document	Attachment E	365 days after adoption of Order	One Time
33	Conduct Dry Weather Monitoring Program	Attachment E	Begins May 1, 2003 Thereafter conducted May 1 st to September 30 th	Annually
34	Complete NPDES applications for issuance of renewal watershed-based permits	Attachment C	At least 180 days prior to expiration of Order	One Time

Task No.	Task	Permit Section	Completion Date	Frequency
35	Notify SDRWQCB of any incidence of non-compliance with this Order that poses a threat to human or environmental health.	R.1, B.6 of Attachment C	Within 24 hours of discovery of non-compliance	As Needed
36	Designate Principal Permittee(s) and notify SDRWQCB	O.	90 days after adoption of the Order	One Time

Table 6. Submittal Summary

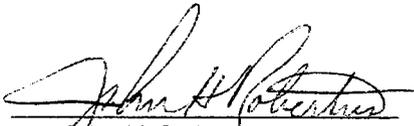
Submittal No.	Submittal	Permit Section	Completion Date	Frequency
1	Submit identification of discharges not to be prohibited and BMPs required for treatment of discharges not prohibited	B.3.	365 days after adoption of Order	One Time
2	Report on discharges causing or contributing to an exceedance of water quality standards, including description of BMP implementation	C.2.a.	With individual Jurisdictional URMP Annual Reports	As Needed
3	Submit Certified Statement of Adequate Legal Authority	D.2.	365 days after adoption of Order	One Time
4	Submit certified statement if particular high priority construction sites are to be inspected monthly rather than weekly in the rainy season	F.2.g.(2).	365 days after adoption of Order and as needed thereafter	As Needed
5	Submit report on non-compliant construction sites that pose a threat to human or environmental health.	F.2.i.	Within 5 Days of discovery of non-compliance	As Needed
6	Submit report on non-compliant industrial sites that pose a threat to human or environmental health.	F.3.b.8.	Within 5 days of discovery of non compliance	As Needed
7	Submit to Principal Permittee(s) individual Jurisdictional URMP document covering requirements for all Components	H.1.a.	Prior to 365 days after adoption of Order (Principal Permittee(s) specifies date of submittal)	One Time
8	(This space reserved).			
9	Principal Permittee(s) shall submit to SDRWQCB unified Jurisdictional URMP document covering requirements for all Components, including Model SUSMP	H.2.a.	365 days after adoption of Order	One Time
10	(This space reserved).			
11	Submit to SDRWQCB local SUSMP and amended ordinances	F.1.b.(2). and H.1.d.	180 days after development of Model SUSMP	One Time
12	Submit to Principal Permittee(s) individual Jurisdictional URMP Annual Report	I.1.	Prior to November 9, 2003 (Principal Permittee(s) specifies date of submittal)	Annually
13	Principal Permittee(s) shall submit 1st unified Jurisdictional URMP Annual Report to SDRWQCB	I.2.	Prior to November 9, 2003	One Time and Annually Thereafter
14	Submit to Principal Permittee(s) Watershed Specific URMP document	L.1.	Prior to August 13, 2003 (Principal Permittee(s) specifies date of submittal)	One Time
15	Principal Permittee(s) shall submit Watershed URMP document to SDRWQCB	L.2.	August 13, 2003	One Time
16	Principal Permittee(s) shall submit 2nd unified Jurisdictional URMP Annual Report to SDRWQCB	I.2.	Prior to November 9, 2004	One Time
17	(This space reserved).			
18	Principal Permittee(s) shall submit 1st Watershed URMP Annual Report to SDRWQCB	M.2.	Prior to November 9, 2004	One Time and Annually Thereafter
19	Principal Permittee(s) shall submit 3rd unified Jurisdictional URMP Annual Report to SDRWQCB	I.2.	Prior to November 9, 2005	One Time

Submittal No.	Submittal	Permit Section	Completion Date	Frequency
20	Principal Permittee(s) shall submit 2 nd Watershed URMP Annual Report to SDRWQCB	M.2.	Prior to November 9, 2005	One Time
21	Principal Permittee(s) shall submit 4 th unified Jurisdictional URMP Annual Report to SDRWQCB	I.2.	Prior to November 9, 2006	One Time
22	Principal Permittee(s) shall submit 3 rd Watershed URMP Annual Report to SDRWQCB	M.2.	Prior to November 9, 2006	One Time
23	Principal Permittee(s) shall submit 5 th unified Jurisdictional URMP Annual Report to SDRWQCB	I.2.	Prior to November 9, 2007	One Time
24	Principal Permittee(s) shall submit standardized formats for all reports required under this Order	O.4.	365 days after adoption of Order	One Time
25	Principal Permittee(s) submits Receiving Waters Monitoring Program Document	Attachment B	180 days after adoption of Order	One Time
26	Principal Permittee(s) submits Receiving Waters Monitoring Annual Report to SDRWQCB	Attachment B	Prior to November 9, 2003	Annually
27	Submit to Principal Permittee(s) Dry Weather Monitoring Program Document	Attachment E	Prior to 365 days after adoption of Order	One Time
28	Principal Permittee(s) submits collective Dry Weather Monitoring Program Documents	Attachment E	365 days after adoption of Order	One Time
29	Submit to Principal Permittee(s) Dry Weather Monitoring Program results as part of individual Jurisdictional URMP Annual Report	Attachment E	Prior to November 9, 2003, as part of individual Jurisdictional URMP Annual Report	Annually
30	Principal Permittee(s) shall submit NPDES applications for issuance of renewal watershed-based permits	Attachment C	At least 180 days prior to expiration of this Order	One Time
31	Submit reports of any incidence of non-compliance with this Order that poses a threat to human or environmental health.	R.1, B.6 of Attachment C	Within 5 days of discovery of non compliance	As Needed

R. STANDARD PROVISIONS, REPORTING REQUIREMENTS AND NOTIFICATIONS

- Each Copermitttee shall comply with Standard Provisions, Reporting Requirements, and Notifications contained in **Attachment C** of this Order. This includes 24 hour/5day reporting requirements for any instance of non-compliance with this Order as described in section B.6 of Attachment C.
- All plans, reports and subsequent amendments submitted in compliance with this Order shall be implemented immediately (or as otherwise specified) and shall be an enforceable part of this Order upon submission to the SDRWQCB. All submittals by Copermitttees must be adequate to implement the requirements of this Order.

I, John H. Robertus, Executive Officer, do hereby certify the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Diego Region, on **February 13, 2002**.


 John H. Robertus
 Executive Officer

ATTACHMENT A

BASIN PLAN PROHIBITIONS

California Water Code Section 13243 provides that a Regional Board, in a water quality control plan, may specify certain conditions or areas where the discharge of waste, or certain types of waste is not permitted. The following discharge prohibitions are applicable to any person, as defined by Section 13050(c) of the California Water Code, who is a citizen, domiciliary, or political agency or entity of California whose activities in California could affect the quality of waters of the state within the boundaries of the San Diego Region.

1. The discharge of waste to waters of the state in a manner causing, or threatening to cause a condition of pollution, contamination or nuisance as defined in California Water Code Section 13050, is prohibited.
2. The discharge of waste to land, except as authorized by waste discharge requirements or the terms described in California Water Code Section 13264 is prohibited.
3. The discharge of pollutants or dredged or fill material to waters of the United States except as authorized by an NPDES permit or a dredged or fill material permit (subject to the exemption described in California Water Code §13376) is prohibited.
4. Discharges of recycled water to lakes or reservoirs used for municipal water supply or to inland surface water tributaries thereto are prohibited, unless this Regional Board issues a NPDES permit authorizing such a discharge; the proposed discharge has been approved by the State Department of Health Services and the operating agency of the impacted reservoir; and the discharger has an approved fail-safe long-term disposal alternative.
5. The discharge of waste to inland surface waters, except in cases where the quality of the discharge complies with applicable receiving water quality objectives, is prohibited. Allowances for dilution may be made at the discretion of the Regional Board. Consideration would include streamflow data, the degree of treatment provided and safety measures to ensure reliability of facility performance. As an example, discharge of secondary effluent would probably be permitted if streamflow provided 100:1 dilution capability.
6. The discharge of waste in a manner causing flow, ponding, or surfacing on lands not owned or under the control of the discharger is prohibited, unless the discharge is authorized by the Regional Board.
7. The dumping, deposition, or discharge of waste directly into waters of the state, or adjacent to such waters in any manner which may permit its being transported into the waters, is prohibited unless authorized by the Regional Board.
8. Any discharge to a storm water conveyance system that is not composed entirely of "*storm water*" is prohibited unless authorized by the Regional Board. [The federal regulations, 40 CFR 122.26 (b) (13), define storm water as storm water runoff, snow melt runoff, and surface runoff and drainage. 40 CFR 122.26 (b) (2) defines an illicit discharge as any discharge to a storm water conveyance system that is not composed entirely of storm water except discharges pursuant to a NPDES permit and discharges resulting from fire fighting activities. [§122.26 amended at 56 FR 56553, November 5, 1991; 57 FR 11412, April 2, 1992].

9. The unauthorized discharge of treated or untreated sewage to waters of the state or to a storm water conveyance system is prohibited.
10. The discharge of industrial wastes to conventional septic tank/subsurface disposal systems, except as authorized by the terms described in California Water Code Section 13264, is prohibited.
11. The discharge of radioactive wastes amenable to alternative methods of disposal into the waters of the state is prohibited.
12. The discharge of any radiological, chemical, or biological warfare agent into waters of the state is prohibited.
13. The discharge of waste into a natural or excavated site below historic water levels is prohibited unless the discharge is authorized by the Regional Board.
14. The discharge of sand, silt, clay, or other earthen materials from any activity, including land grading and construction, in quantities which cause deleterious bottom deposits, turbidity or discoloration in waters of the state or which unreasonably affect, or threaten to affect, beneficial uses of such waters is prohibited.
15. The discharge of treated or untreated sewage from vessels to Mission Bay, Oceanside Harbor, Dana Point Harbor, or other small boat harbors is prohibited.
16. The discharge of untreated sewage from vessels to San Diego Bay is prohibited.
17. The discharge of treated sewage from vessels to portions of San Diego Bay that are less than 30 feet deep at mean lower low water (MLLW) is prohibited.
18. The discharge of treated sewage from vessels, which do not have a properly functioning US Coast Guard certified Type I or Type II marine sanitation device, to portions of San Diego Bay that are greater than 30 feet deep at mean lower low water (MLLW) is prohibited.

ATTACHMENT B

RECEIVING WATERS MONITORING AND REPORTING PROGRAM FOR ORDER NO. R9-2002-0001

B.1 Receiving Waters Monitoring Program

The Copermittees shall collaborate to develop, implement, and report annually on a Receiving Waters Monitoring Program for Orange County within the San Diego Region. The primary objectives of the Receiving Waters Monitoring and Reporting Program include:

- Assessing compliance with Order No. R9-2002-0001;
- Measuring the effectiveness of Urban Runoff Management Plans;
- Assessing the chemical, physical, and biological impacts to receiving waters resulting from urban runoff; and
- Assessing the overall health and evaluating long-term trends in receiving water quality.

Order No. R9-2002-0001 may be modified by the SDRWQCB Executive Officer without further public notice to direct the Copermittees to participate in comprehensive regional monitoring activities in the Southern California Bight in lieu of specific Order R9-2002-0001 receiving waters monitoring requirements during the term of this Order.

B.2 Receiving Waters Monitoring Program Document

Within **180** days of the adoption of this Order the Copermittees shall submit to the SDRWQCB a Receiving Waters Monitoring Program document, subject to SDRWQCB review, that incorporates the following components:

- a. Previous Monitoring and Future Recommendations Technical Report; and
- b. Receiving Waters Monitoring Program

B.2.a. Previous Monitoring and Future Recommendations Technical Report

The Copermittees shall collaborate to prepare a technical report that provides analysis, interpretation, and summary of all previous wet weather monitoring results from programs conducted in the watersheds within the San Diego Region under the First Term Permit, the Second Term Permit, and the Orange County Water Quality Monitoring Program (99-04 Plan) currently being implemented by the Copermittees. The report shall also provide recommendations for the Receiving Waters Monitoring Program to comply with the objectives listed in Attachment B.1 above and incorporates the specific receiving waters monitoring requirements of Attachment B.2.b. At a minimum, the report shall:

- (1) Summarize the cumulative findings of all previous wet weather monitoring;
- (2) Identify detectable trends in water quality data and receiving water quality, based on the cumulative previous wet weather monitoring findings;
- (3) Interpret the cumulative previous wet weather monitoring findings;
- (4) Describe the monitoring design, sampling and analytical methods employed in the 99-04 Plan within the San Diego Region;
- (5) Describe the identification of Critical Aquatic Resources and Warm Spots in the 99-04 Plan within the San Diego Region and how these will be addressed in the Receiving Waters Monitoring Program;
- (6) Draw conclusions regarding the cumulative previous wet weather monitoring findings;

- (7) Describe how the monitoring data collected under the previous monitoring programs, including the 99-04 Plan, have been utilized by the Copermittees in the implementation of the 1993 DAMP under Order No. 96-03;
- (8) Describe how the monitoring data collected under this Order will be utilized in the implementation of the Jurisdictional and Watershed Urban Runoff Management Plans;
- (9) Provide recommendations for future monitoring activities in the San Diego Region (i.e. number and location of sampling stations, frequency of sampling, parameters to be analyzed, methods and materials to be used, and a rationale for each) that achieves the objectives listed in section B.1 and incorporates the specific program requirements of section B.2.b of this Attachment; and
- (10) Include an executive summary, introduction, conclusion, and summary of recommendations.

B.2.b. Receiving Waters Monitoring Program

The Copermittees shall collaborate to review and revise the existing 99-04 Plan utilizing the findings of the Previous Monitoring and Future Recommendations Technical Report. The revised 99-04 Plan shall incorporate the specific requirements of this section for Orange County within the San Diego Region and henceforth referred to under this Order as the Receiving Waters Monitoring Program. The Receiving Waters Monitoring Program shall at a minimum include, satisfy, or exceed the following requirements:

- (1) The Receiving Waters Monitoring shall be conducted during each reporting period under the Order. A reporting period is defined as October 1st to September 30th of any year. The first reporting period under this Order is October 1, 2002 to September 30, 2003.
- (2) Both the annual and long-term objectives of the Receiving Waters Monitoring Program shall be clearly stated and reported annually and shall focus on the primary objectives of the program listed in Attachment B.1.
- (3) The monitoring program design, implementation, analysis, assessment, and reporting shall be conducted annually on a watershed basis for each of the six hydrologic units in the San Juan Creek Watershed Management Area within Orange County (Orange County Coastal Streams – Laguna, Aliso Creek Watershed, Dana Point Watershed, San Juan Creek Watershed, Orange County Coastal Streams – San Clemente, and San Mateo Creek) as defined in the Water Quality Control Plan for the San Diego Region (9) and Watershed Management Chapter for the San Diego Region.
- (4) Monitoring results shall be assessed and reported annually on a watershed basis as a single report by the Copermittees consisting of one common section and six watershed sections. Monitoring, analysis, assessment, and reporting shall satisfy the requirements of specified below for each watershed as applicable.
- (5) Describe how the Copermittees may collaborate with other agencies or organizations conducting similar monitoring, such as the Southern California Coastal Water Research Project (SCCWRP), including the possibility of participating in coordinated comprehensive regional monitoring in the Southern California Bight under this Order.
- (6) The Receiving Waters Monitoring Program document shall be submitted to the SDRWQCB for review and comment no later than 180 days following the adoption of this Order.
- (7) Implementation of the Receiving Waters Monitoring Program shall begin no later than August 13, 2002.
- (8) The Receiving Waters Monitoring Program shall incorporate the components listed below and shall address the primary objectives of the Receiving Waters Monitoring Program:
 - (a) Urban Stream Bioassessment
 - (b) Long Term Mass Loading

- (c) Coastal Storm Drain Outfall Monitoring
- (d) Ambient Coastal Receiving Waters Monitoring

B.2.b.8.a Urban Stream Bioassessment Monitoring

1. The Copermittees shall collaborate to develop and implement an urban stream bioassessment monitoring program. At a minimum, the program shall consist of station identification, sampling, monitoring, and analysis of data for 12 bioassessment stations in order to determine the biological and physical integrity of urban streams within the County of Orange. In addition to the urban stream bioassessment stations, three reference bioassessment stations shall be identified, sampled, monitored, and analyzed. The selection, sampling, monitoring, and analysis of bioassessment stations shall meet the following requirements:
 - a. Each urban stream bioassessment station shall be selected using the following criteria. Each urban stream bioassessment station shall:
 - (1) be located within the jurisdiction of a Copermittee; or
 - (2) be located within one of the six watersheds described above; and
 - (3) be representative of urban stream conditions within one of the six watersheds specified in Section J, Table 4 of this Order; and
 - (4) meet the physical criteria of the California Stream Bioassessment Procedure¹; and
 - (5) to the extent feasible, coincide with the location of an already existing monitoring station used by the California Department of Fish and Game in the conduct of the SDRWQCB's Ambient Bioassessment Program.
 - b. Each bioassessment station shall be monitored twice annually, in May and October of each year, beginning in October 2002². A minimum of three replicate samples shall be collected at each station during each sampling event.
 - c. Sampling, laboratory, quality assurance, and analysis procedures shall follow the standardized procedures set forth in the California Department of Fish and Game's California Stream Bioassessment Procedure (CSBP). Analysis procedures shall include comparison between station mean values for various biological metrics. Sampling, laboratory, quality assurance, and analytical procedures shall follow the standardized "Non-Point Source Bioassessment Sampling Procedures" for professional bioassessment set forth in the CSBP. In the event that the CSBP "Point-Source Professional Bioassessment Procedure" is performed in place of the "Non Point Source Bioassessment Sampling Procedure," justification and documentation of the procedure shall be submitted with the report. Results of the Urban Stream Bioassessment Monitoring shall be reported annually as part of the overall Receiving Waters Monitoring and Reporting Program for Order No. R9-2002-0001. Reporting of the bioassessment data shall follow the format of the San Diego Regional Water Quality Control Board 1999 Biological Assessment Annual Report³. The report shall include:

¹ California Stream Bioassessment Procedure (Protocol Brief for Biological and Physical/Habitat Assessment in Wadeable Streams), California Department of Fish and Game – Aquatic Bioassessment Laboratory, May 1999.

² Bioassessment sampling shall be performed in May and October each year.

³ San Diego Regional Water Quality Control Board, 1999 Biological Assessment Annual Report. A Water Quality Inventory Series: Biological and Physical/Habitat Assessment of California Water Bodies. California Department of Fish and Game Office of Spill Prevention and Response, Water Pollution Control Laboratory. December 1999.

- (1) All physical, chemical and biological data collected in the assessment;
 - (2) Photographic documentation of assessment and reference stations;
 - (3) Documentation of quality assurance and control procedures;
 - (4) Analysis that includes calculation of the metrics used in both the CSBP and the 1999 Annual Report.
 - (5) The assessment shall utilize a regional index of biological integrity when it becomes available.
 - (6) The report shall provide interpretation for comparisons of mean biological and habitat assessment metric values between assessment and reference stations.
 - (7) Electronic data formatted to California Department of Fish and Game Aquatic Bioassessment Laboratory specifications for inclusion in the Statewide Access Bioassessment database.
- d. A professional environmental laboratory or Copermittee staff shall perform all sampling, laboratory, quality assurance, and analytical procedures. While valuable, data collected by volunteer monitoring organizations shall not be submitted in place of professional assessments.
- e. Reference stations shall be selected following the recommendations in the 1999 Annual Report, Hughes (1995)⁴ and Barbour et. al. (1999)⁵. Reference stations shall be evaluated annually by the Copermittees for suitability and the results included in the annual report. New reference stations will be selected as needed by the Copermittees.
2. The Copermittees shall design and implement a program to conduct standardized toxicity testing at urban stream bioassessment stations where the bioassessment data indicates significant impairment. When findings indicate the presence of toxicity, a Toxicity Identification Evaluation (TIE) shall be conducted to determine the cause(s) of the toxicity.

B.2.b.8.b Long Term Mass Loading

For purposes of evaluating long-term trends and assessing the effectiveness of urban runoff management programs, the Copermittees shall continue to implement the mass loading monitoring conducted under the 99-04 Plan in Orange County within the San Diego Region. The mass loading monitoring component shall, however, be revised as necessary to ensure adequate coverage of the San Diego Region and to specify that when findings or observations indicate the possible presence of toxicity, a Toxicity Identification Evaluation (TIE) shall be conducted to determine the cause(s) of the toxicity.

B.2.b.8.c. Coastal Storm Drain Outfall Monitoring

The Copermittees shall collaborate to develop and implement a monitoring program for discharges of urban runoff from coastal storm drain outfalls. The program shall meet the following requirements:

4 Hughes, R. M. (1995) Defining Acceptable Biological Status by Comparing with Reference Conditions in Biological Assessment and Criteria: Tools for Water Resource Planning and Decision Making, Wayne S. Davis and Thomas P. Simon eds. Lewis Publishers, Boca Raton, LA.

5 Barbour, M.T. , J Gerritsen, B.D. Synder, and J.B. Stribling (1999) Rapid Bioassessment Protocols For Use in Streams and Wadeable Rivers: Periphyton, Benthic Macroinvertebrates, and Fish. Second Edition. EPA 841-B-99-002.

1. The program shall include rationale and criteria for selection of storm drain outfalls to be monitored.
2. The program shall include collection of samples for analysis of total coliform, fecal coliform, and enterococci, in addition to any other indicators or pathogens identified by the Copermitees.
3. Samples shall be collected at both the storm drain outfall and in the surf zone (at ankle to knee water depths) directly in front of the outfall.
4. Samples shall be collected during both dry and wet weather periods.
5. Exceedances of public health standards for bacteria must be reported to the County of Orange Health Care Agency, Regulatory Health Services, Environmental Health, Ocean Recreation Protection Program as soon as possible by the Copermitees.

B.2.b.8.d. Ambient Coastal Receiving Water Monitoring

The Copermitees shall collaborate to develop and implement a program to assess the overall health of the coastal receiving waters and monitor the impact of urban runoff on ambient receiving water quality. This monitoring shall include Dana Cove, the creek and stream mouths, the Pacific Ocean coastline of Orange County within the San Diego region, and all Clean Water Act section 303(d) water bodies or other environmentally sensitive areas as defined in F.1.b.(2)(a)vi of this Order.

B.3 Implementation of the Receiving Waters Monitoring Program

Upon approval by the SDRWQCB the Copermitees shall implement the Receiving Waters Monitoring Program.

B.4 Interim Implementation of the 99-04 Plan

Until approval of the Receiving Waters Monitoring Program by the SDRWQCB, the Copermitees shall continue to implement the 99-04 Plan as described in Appendix K of the proposed DAMP.

B.5 Submittal of Receiving Waters Monitoring Annual Reports

The Principal Permittee shall submit the Receiving Waters Monitoring Annual Report to the SDRWQCB prior to November 9th of each year, beginning on November 9, 2003.

B.6 Monitoring Annual Report Requirements

- a. Monitoring reports shall provide the data/results, methods of evaluating the data, graphical summaries of the data, and an explanation/discussion of the data for each monitoring program component listed above.
- b. Monitoring reports shall include an analysis of the findings of each monitoring program component listed above. The analysis shall identify and prioritize water quality problems. Based on the identification and prioritization of water quality problems, the analysis shall identify potential sources of the problems, and recommend future monitoring and BMP implementation measures for identifying and addressing the sources. The analysis shall also include an evaluation of the effectiveness of existing control measures.

- c. Monitoring reports shall include identification and analysis of any long-term trends in storm water or receiving water quality.
- d. Monitoring reports shall provide an estimation of total pollutant loads (wet weather loads plus dry weather loads) due to urban runoff for each of the watersheds specified in Section J, Table 4 of Order No. R9-2002-0001.
- e. Monitoring reports shall for each monitoring program component listed above, include an assessment of compliance with applicable water quality standards.
- f. All monitoring reports shall use a standard report format and shall include the following:
 - 1. A stand alone comprehensive executive summary addressing all sections of the monitoring report;
 - 2. Comprehensive interpretations and conclusions; and
 - 3. Recommendations for future actions.
- g. All monitoring reports submitted to the Principal Permittee or the SDRWQCB shall contain the certified perjury statement described in Standard Reporting Requirements in Attachment C section B.9.d.
- h. A committee (consisting of no less than three members) shall review all monitoring reports prior to submittal to the SDRWQCB. All review comments shall also be submitted to the SDRWQCB.
- i. All monitoring reports shall be submitted in both electronic and paper formats.
- j. All monitoring reports shall describe monitoring station locations by latitude and longitude coordinates, frequency of sampling, quality assurance/quality control procedures and sampling and analysis protocols.
- k. Monitoring programs and reports shall comply with Section B.7 of Attachment B, as well as Attachment C.

B.7 Standard Monitoring Requirements

- a. All monitoring activities shall meet the following requirements:

- 1. Monitoring and Records [40 CFR 122.41(j)(1)]

Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.

- 2. Monitoring and Records [40 CFR 122.41(j)(2)] [California Water Code § 13383(a)]

The discharger shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by this Order, and records of all data used to complete the application for this permit, for a period of at least three years from the date of the sample, measurement, report or application. This period may be extended by request of the SDRWQCB at any time.

3. Monitoring and Records [40 CFR 122.21(j)(3)]

Records of monitoring information shall include the information requested in Attachment B and the following:

- a. The date, exact place, and time of sampling or measurements;
- b. The individual(s) who performed the sampling or measurements;
- c. The date(s) analyses were performed;
- d. The individual(s) who performed the analyses;
- e. The analytical techniques or methods used; and
- f. The results of such analyses.

4. Monitoring and Records [40 CFR 122.21(j)(4)]

Monitoring results must be conducted according to test procedures approved under 40 CFR part 136 unless other test procedures have been specified in this Order.

5. Monitoring and Records [40 CFR 122.21(j)(5)]

The Clean Water Act provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under this Order shall, upon conviction, be punished by a fine of not more than \$10,000, or by imprisonment for not more than two years, or both. If a conviction of a person is for a violation committed after a first conviction of such person under this paragraph, punishment is a fine of not more than \$20,000 per day of violation, or by imprisonment of not more than four years, or both.

6. Monitoring and Records [40 CFR 122.41(k)(2)]

The Clean Water Act provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or non-compliance shall, upon conviction, be punished by a fine of not more than \$10,000 per violation, or by imprisonment for not more than six months per violation, or by both.

7. Monitoring Reports [40 CFR 122.41(l)(4)]

Monitoring results shall be reported at the intervals specified elsewhere in this Order.

8. Monitoring Reports [40 CFR 122.41(l)(4)(ii)]

If the discharger monitors any pollutant more frequently than required by the permit using test procedures approved under 40 CFR part 136, unless otherwise specified in the Order, the results of this monitoring shall be included in the calculation and reporting of the data submitted in the reports requested by the SDRWQCB.

9. Monitoring Reports [40 CFR 122.41(l)(4)(iii)]

Calculations for all limitations which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified by the SDRWQCB in the Order.

ATTACHMENT C
STANDARD PROVISIONS
REPORTING REQUIREMENTS, AND
NOTIFICATIONS

A. STANDARD PROVISIONS

1. Duty To Comply [40 CFR 122.41(a)(1)]
The discharger shall comply with effluent standards or prohibitions established under Section 307(a) of the Clean Water Act for toxic pollutants and with standards for sewage sludge use or disposal established under Section 405(d) of the Clean Water Act within the time provided in the regulations that establish these standards or prohibitions or standards for sewage sludge use or disposal, even if this Order has not yet been modified to incorporate the requirement.
2. Need to Halt or Reduce Activity Not a Defense [40 CFR 122.41(c)]
It shall not be a defense for the discharger in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this Order. Upon reduction, loss, or failure of a treatment facility, the discharger shall, to the extent necessary to maintain compliance with this Order, control production or all discharges, or both, until the facility is restored or an alternative method of treatment is provided. This provision applies, for example, when the primary source of power of a treatment facility fails, is reduced, or is lost.
3. Duty to Mitigate [40 CFR 122.41(d)]
The discharger shall take all reasonable steps to minimize or prevent any discharge or prevent any discharge or sludge use or disposal in violation of this Order which has a reasonable likelihood of adversely affecting human health or the environment.
4. Proper Operation and Maintenance [40 CFR 122.41(e)]
The discharger shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the discharger to achieve compliance with the conditions of this Order. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems which are installed by the discharger only when the operation is necessary to achieve compliance with the conditions of this Order.
5. Permit Actions [40 CFR 122.41(f)] [California Water Code § 13381]
This Order may be modified, revoked and reissued, or terminated for cause including, but not limited to, the following:
 - a. Violation of any terms or conditions of this Order;
 - b. Obtaining this Order by misrepresentation or failure to disclose fully all relevant facts;
 - c. A change in any condition that requires either a temporary or permanent reduction or elimination of the authorized discharge; or
 - d. A determination that the permitted activity endangers human health or the environment and can only be regulated to acceptable levels by permit modification or termination.

The filing of a request by the discharger for modification, revocation and reissuance, or termination of this Order, or a notification of planned changes or anticipated noncompliance does not stay any condition of this Order.

6. Property Rights [40 CFR 122.41(g)] [California Water Code §13263(g)]
This Order does not convey any property rights of any sort or any exclusive privilege. The requirements prescribed herein do not authorize the commission of any act causing injury to persons or property, nor protect the discharger from liabilities under federal, state, or local laws, nor create a vested right for the discharger to continue the waste discharge.
7. Inspection and Entry [40 CFR 122.41(i)] [California Water Code § 13267(c)]
The discharger shall allow the SDRWQCB, or an authorized SDRWQCB representative, or an authorized representative of the USEPA (including an authorized contractor acting as a representative of the SDRWQCB or USEPA), upon presentation of credentials and other documents as may be required by law, to:
 - a. Enter upon the discharger's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of this Order;
 - b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this Order;
 - c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this Order; and
 - d. Sample or monitor at reasonable times, for the purposes of assuring compliance with this Order or as otherwise authorized by the Clean Water Act or California Water Code, any substances or parameters at any location.
8. Bypass of Treatment Facilities [40 CFR 122.41(m)]
 - a. Definitions
 - (1) "Bypass" means the intentional diversion of waste streams from any portion of a treatment facility.
 - (2) "Severe property damage" means substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.
 - b. Bypass not Exceeding Limitations

The discharger may allow any bypass to occur which does not cause effluent limitations of this Order or the concentrations of pollutants set forth in Ocean Plan Table A or Table B to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of paragraphs c. and d. of this provision.
 - c. Notice
 - (1) Anticipated bypass. If the discharger knows in advance of the need for a bypass, it shall submit prior notice, if possible, at least ten days before the date of the bypass.
 - (2) Unanticipated bypass. The discharger shall submit notice of an unanticipated bypass as required in section B.7 of Attachment C.

d. Prohibition of Bypass

Bypass is prohibited, and the SDRWQCB may take enforcement action against the discharger for bypass, unless:

- (1) Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;
- (2) There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and
- (3) The discharger submitted notices as required under paragraph c. of this section. The SDRWQCB may approve an anticipated bypass, after considering its adverse effects, if the SDRWQCB determines that it will meet the three conditions listed above in paragraph d.(1) of this section.

9. Upset [40 CFR 122.41(n)]

- a. Definition "Upset" means an exceptional incident in which there is unintentional and temporary noncompliance with technology based effluent limitations because of factors beyond the reasonable control of the discharger. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.
- b. Effect of an Upset An upset constitutes an affirmative defense to an action brought for noncompliance with such technology based permit effluent limitations if the requirements of paragraph c. of this section are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.
- c. Conditions Necessary for a Demonstration of Upset A discharger who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:
 - (1) An upset occurred and that the discharger can identify the cause(s) of the upset;
 - (2) The permitted facility was at the time being properly operated;
 - (3) The discharger submitted notice of the upset as required in section B.7 of Attachment C of this Order; and
 - (4) The discharger complied with any remedial measures required under Provision A.5. of Attachment C of this Order.
- d. Burden of Proof In any enforcement proceeding the discharger seeking to establish the occurrence of an upset has the burden of proof.

10. Other Effluent Limitations and Standards [40 CFR 122.44(b)(1)]

If any toxic effluent standard or prohibition (including any schedule of compliance specified in such effluent standard or prohibition) is promulgated under Section 307(a) of the Clean Water Act for a toxic pollutant which is present in the discharge and that standard or prohibition is more stringent than any limitation on the pollutant in this Order, the SDRWQCB may institute proceedings under these regulations to modify or revoke and reissue the Order to conform to the toxic effluent standard or prohibition.

11. The discharger shall take all reasonable steps to minimize or correct any adverse impact on the environment resulting from noncompliance with this Order, including such accelerated or additional monitoring as may be necessary to determine the nature and impact of the noncomplying discharge.
12. The provisions of this Order are severable, and if any provision of this Order, or the application of any provision of this Order to any circumstances, is held invalid, the application of such provision to other circumstances, and the remainder of this Order, shall not be affected thereby.
13. The discharger shall comply with any interim effluent limitations as established by addendum, enforcement action, or revised waste discharge requirements which have been, or may be, adopted by this SDRWQCB.

B. REPORTING REQUIREMENTS

1. Duty to Reapply [40 CFR 122.41(b)] This Order expires on **February 13, 2007**. If the discharger wishes to continue any activity regulated by this Order after the expiration date of this Order, the discharger must apply for and obtain new waste discharge requirements. The discharger must file a Report of Waste Discharge in accordance with Title 23, California Code of Regulations not later than **180 days** in advance of the expiration date of this Order as application for issuance of new waste discharge requirements.
2. Duty to Provide Information [40 CFR 122.41(h)] The discharger shall furnish to the SDRWQCB, SWRCB, or USEPA, within a reasonable time, any information which the SDRWQCB, SWRCB, or USEPA may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this Order, or to determine compliance with this Order. The discharger shall also furnish to the SDRWQCB, SWRCB, or USEPA, upon request, copies of records required to be kept by this Order.
3. Planned Changes [40 CFR 122.41(l)(1)] The discharger shall give notice to the SDRWQCB as soon as possible of any planned physical alterations or additions to the permitted facility. Notice is required only when:
 - a. The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in 40 CFR Part 122.29(b);
 - b. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are subject neither to effluent limitations in this Order, nor to notification requirements under 40 CFR 122.42(a)(l); or
 - c. The alteration or addition results in a significant change in the discharger's sludge use or disposal practices, and such alteration, addition, or change may justify the application of conditions in this Order that are different from or absent in the existing Order, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan.
4. Anticipated Non-Compliance [40 CFR 122.41(l)(2)] The discharger shall give advance notice to the SDRWQCB of any planned changes in the permitted facility or activity which may result in noncompliance with the requirements of this Order.

5. Transfers [40 CFR 122.41(l)(3)] This Order is not transferable to any person except after notice to the SDRWQCB. The SDRWQCB may require modification or revocation and reissuance of this Order to change the name of the discharger and incorporate such other requirements as may be necessary under the Clean Water Act or the California Water Code in accordance with the following:
 - a. Transfers by Modification [40 CFR 122.61(a)]

Except as provided in paragraph b. of this reporting requirement, this Order may be transferred by the discharger to a new owner or operator only if this Order has been modified or revoked and reissued, or a minor modification made to identify the new discharger and incorporate such other requirements as may be necessary under the Clean Water Act or California Water Code.
 - b. Automatic Transfers [40 CFR 122.61(b)]

As an alternative to transfers under paragraph a. of this reporting requirement, any NPDES permit may be automatically transferred to a new discharger if:

 - (1) The current discharger notifies the SDRWQCB at least 30 days in advance of the proposed transfer date in paragraph b.(2) of this reporting requirement;
 - (2) The notice includes a written agreement between the existing and new dischargers containing a specific date for transfer of permit responsibility, coverage, and liability between them; and
 - (3) The SDRWQCB does not notify the existing discharger and the proposed new discharger of his or her intent to modify or revoke and reissue the Order. A modification under this subparagraph may also be a minor modification under 40 CFR Part 122.63. If this notice is not received, the transfer is effective on the date specified in the agreement mentioned in paragraph b.(2) of this reporting requirement.
6. Twenty-four Hour Reporting [40 CFR 122.41(l)(6)]

Each Copermittee shall develop and submit criteria by which to evaluate events of non-compliance to determine whether they pose a threat to human or environmental health. These criteria shall be submitted in the Jurisdictional Urban Runoff Management Program Document and Annual Reports for SDRWQCB review. Using these criteria the discharger shall report any noncompliance with this Order or any noncompliance that may endanger human health or environmental health. Any information shall be provided orally to the SDRWQCB within **24 hours** from the time the discharger becomes aware of the circumstances. A written description of any noncompliance shall be submitted to the SDRWQCB within **five days** of such an occurrence and contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent recurrence of the noncompliance. The following shall be included as information which must be reported within 24 hours under this reporting requirement:

 - a. Any unanticipated bypass which exceeds any effluent limitation in this Order;
 - b. Any discharge of treated or untreated wastewater, including reclaimed or recycled wastewater, resulting from pipeline breaks, obstruction, surcharge or any other circumstance;
 - c. Any discharge or spill of raw or potable water not authorized by this order or resulting from pipeline breaks, obstruction, surcharge or any other circumstance;

- d. Any upset which exceeds any effluent limitation in this Order;
 - e. Any spill or discharge of non-storm water not authorized by this Order. Non-storm water discharges not prohibited by the Copermittees pursuant to Section B of this Order need not be reported under this section; and
 - f. Any violation of this Order.
7. Other Non-Compliance [40 CFR 122.41(l)(7)]
The discharger shall report all instances of noncompliance not reported elsewhere under other sections of this Order at the time annual reports are submitted. The reports shall contain the information listed in part B.6 of Attachment C of this Order.
8. Other Information [40 CFR 122.41(l)(8)]
Where the discharger becomes aware that it failed to submit any relevant facts in a Report of Waste Discharge, or submitted incorrect information in a Report of Waste Discharge, or in any report to the SDRWQCB, it shall promptly submit such facts or information.
9. Signatory Requirements [40 CFR 122.41(k)(1) and 40 CFR 122.22]
All applications, reports, or information submitted to the SDRWQCB shall be signed and certified.
- a. All Reports of Waste Discharge shall be signed as follows:
 - (1) For a corporation: by a responsible corporate officer. For the purpose of this section, a responsible corporate officer means: (a) a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy- or decision-making functions for the corporation; or (b) the manager of one or more manufacturing, production, or operating facilities employing more than 250 persons or having gross annual sales or expenditures exceeding \$25 million (in second-quarter 1980 dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.
 - (2) For a partnership or sole proprietorship: by a general partner or the proprietor, respectively; or
 - (3) For a municipality, State, Federal or other public agency: by either a principal executive officer or ranking elected official. For purposes of this section, a principal executive officer of a Federal agency includes: (a) the chief executive officer of the agency; or (b) a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrators of USEPA).
 - b. All reports required by this Order, and other information requested by the SDRWQCB shall be signed by a person described in paragraph a. of this reporting requirement, or by a duly authorized representative of that person. A person is a duly authorized representative only if:
 - (1) The authorization is made in writing by a person described in paragraph a. of this reporting requirement;
 - (2) The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of

plant manager, operator of a well or a well field, superintendent, position of equivalent responsibility, or an individual or position having overall responsibility for environmental matters for the company. (A duly authorized representative may thus be either a named individual or any individual occupying a named position.); and,

(3) The written authorization is submitted to the SDRWQCB.

- c. If an authorization under paragraph b. of this reporting requirement is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of paragraph b. of this reporting requirement must be submitted to the SDRWQCB prior to or together with any reports, information, or applications to be signed by an authorized representative.
- d. Any person signing a document under paragraph a. or b. of this reporting requirement shall make the following certification:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

- 10. Except for data determined to be confidential under 40 CFR Part 2, all reports prepared in accordance with the terms of this Order shall be available for public inspection at the offices of the SDRWQCB. As required by the Clean Water Act, Reports of Waste Discharge, this Order, and effluent data shall not be considered confidential.
- 11. The discharger shall submit reports and provide notifications as required by this Order to the following:

DAVE GIBSON
NORTHERN WATERSHED PROTECTION UNIT
CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN DIEGO REGION
9174 SKY PARK COURT, SUITE 100
SAN DIEGO CA 92123-4340
Telephone: (858) 467-4387 Fax: (858) 571-6972

EUGENE BROMLEY
US ENVIRONMENTAL PROTECTION AGENCY
REGION IX
PERMITS ISSUANCE SECTION (W-5-1)
75 HAWTHORNE STREET
SAN FRANCISCO CA 94105

- 12. Unless otherwise directed, the discharger shall submit three copies of each report required under this Order to the SDRWQCB and one copy to USEPA.

C. NOTIFICATIONS

1. California Water Code Section 13263(g)
No discharge of waste into the waters of the state, whether or not such discharge is made pursuant to waste discharge requirements, shall create a vested right to continue such discharge. All discharges of waste into waters of the state are privileges, not rights.
2. The SDRWQCB has, in prior years, issued a limited number of individual NPDES permits for non-storm water discharges to municipal storm water conveyance systems. The SDRWQCB or SWRCB may in the future, upon prior notice to the Copermitttee(s), issue an NPDES permit for any non-storm water discharge (or class of non-storm water discharges) to a municipal storm water conveyance system. Copermitttees may prohibit any non-storm water discharge (or class of non-storm water discharges) to a municipal storm water conveyance system that is authorized under such separate NPDES permits.
3. Enforcement Provisions [40 CFR 122.41(a)(2)] [California Water Code §§ 13385 and 13387]
The Clean Water Act provides that any person who violates section 301, 302, 306, 307, 308, 318 or 405 of the Act, or any condition or limitation of this Order, is subject to a civil penalty not to exceed \$25,000 per day for each violation. The Clean Water Act provides that any person who negligently violates sections 301, 302, 306, 307, 308, 318, or 405 of the Act, or any condition or limitation of this Order, is subject to criminal penalties of \$2,500 to \$25,000 per day of violation, or imprisonment of not more than one year, or both. In the case of a second or subsequent conviction for a negligent violation, a person shall be subject to criminal penalties of not more than \$50,000 per day of violation, or by imprisonment of not more than two years, or both. Any person who knowingly violates such sections, or such conditions or limitations is subject to criminal penalties of \$5,000 to \$50,000 per day of violation, or imprisonment for not more than three years, or both. In the case of a second or subsequent conviction for a knowing violation, a person shall be subject to criminal penalties of not more than \$100,000 per day of violation, or imprisonment of not more than six years, or both. Any person who knowingly violates section 301, 302, 303, 306, 307, 308, 318 or 405 of the Act, or any condition or limitation of this Order, and who knows at that time that he or she thereby places another person in imminent danger of death or serious bodily injury, shall, upon conviction, be subject to a fine of not more than \$250,000 or imprisonment of not more than 15 years, or both. In the case of a second or subsequent conviction for a knowing endangerment violation, a person shall be subject to a fine of not more than \$500,000 or by imprisonment of not more than 30 years, or both. An organization, as defined in section 309(c)(3)(B)(iii) of the Clean Water Act, shall, upon conviction of violating the imminent danger provision, be subject to a fine of not more than \$1,000,000 and can be fined up to \$2,000,000 for second or subsequent convictions.
4. Except as provided in Standard Provisions A.10. and A.11. in Attachment C of this Order, nothing in this Order shall be construed to relieve the discharger from civil or criminal penalties for noncompliance.
5. Nothing in this Order shall be construed to preclude the institution of any legal action or relieve the discharger from any responsibilities, liabilities, or penalties to which the discharger is or may be subject to under Section 311 of the Clean Water Act.
6. Nothing in this Order shall be construed to preclude institution of any legal action or relieve the discharger from any responsibilities, liabilities, or penalties established pursuant to any applicable State law or regulation under authority preserved by Section 510 of the Clean Water Act.

7. This Order shall become effective on **February 13, 2002**, provided the USEPA Regional Administrator has no objection. If the Regional Administrator objects to its issuance, this Order shall not become effective until such objection is withdrawn.
8. This Order supersedes Order No. 96-03 upon the effective date of this Order.

ATTACHMENT D

GLOSSARY

Beneficial Uses - The uses of water necessary for the survival or well being of man, plants, and wildlife. These uses of water serve to promote the tangible and intangible economic, social, and environmental goals "Beneficial Uses" of the waters of the State that may be protected against include, but are not limited to, domestic, municipal, agricultural and industrial supply; power generation; recreation; aesthetic enjoyment; navigation; and preservation and enhancement of fish, wildlife, and other aquatic resources or preserves. Existing beneficial uses are uses that were attained in the surface or ground water on or after November 28, 1975; and potential beneficial uses are uses that would probably develop in future years through the implementation of various control measures. "Beneficial Uses" are equivalent to "Designated Uses" under federal law. [California Water Code Section 13050(f)].

Best Available Technology (BAT) – BAT is the acronym for best available technology economically achievable. BAT is the technology-based standard established by congress in CWA section 402(p)(3)(A) for industrial dischargers of storm water. Technology-based standards establish the level of pollutant reductions that dischargers must achieve, typically by treatment or by a combination of treatment and best management practices, or BMPs. For example, secondary treatment (or the removal of 85% suspended solids and BOD) is the BAT for suspended solid and BOD removal from a sewage treatment plant. BAT generally emphasizes treatment methods first and pollution prevention and source control BMPs secondarily.

The best economically achievable technology that will result in reasonable further progress toward the national goal of eliminating the discharge of all pollutants, as determined in accordance with regulations issued by the Environmental Protection Agency Administrator. Factors relating to the assessment of best available technology shall take into account the age of equipment and facilities involved, the process employed, the engineering aspects of the application of various types of control techniques, process changes, the cost of achieving such effluent reduction, non-water quality environmental impact (including energy requirements), and such other factors as the permitting authority deems appropriate.

Best Conventional Technology (BCT) – BCT is an acronym for Best Conventional Technology. BCT is the treatment techniques, processes and procedure innovations, operating methods that eliminate amounts of chemical, physical, and biological characteristics of pollutant constituents to the degree of reduction attainable through the application of the best management practices to the maximum extent practicable.

Best Management Practices - Best Management Practices (BMPs) are defined in 40 CFR 122.2 as schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of waters of the United States. BMPs also include treatment requirements, operating procedures and practices to control plant site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage. In the case of municipal storm water permits, BMPs are typically used in place of numeric effluent limits.

Bioaccumulate - The progressive accumulation of contaminants in the tissues of organisms through any route including respiration, ingestion, or direct contact with contaminated water, sediment, pore water, or dredged material to a higher concentration than in the surrounding environment. Bioaccumulation occurs with exposure and is independent of the trophic level.

Bioassessment - The use of biological community information to evaluate the biological integrity of a water body and its watershed. With respect to aquatic ecosystems, bioassessment is the collection and analysis of samples of the benthic macroinvertebrate community together with physical/habitat quality measurements associated with the sampling site and the watershed to evaluate the biological condition (i.e. biological integrity) of a water body.

Bioconcentration – A process by which there is a net accumulation of a chemical directly from water into aquatic organisms resulting from simultaneous uptake and elimination by gill or epithelial tissue. Bioconcentration differs from bioaccumulation in that bioaccumulation refers to the progressive concentration of contaminants in the tissues of organisms through multiple pathways.

Biocriteria - Under the Clean Water Act, numerical values or narrative expressions that define a desired biological condition for a water body that are legally enforceable. The U.S. EPA defines biocriteria as: “numerical values or narrative expressions that describe the reference biological integrity of aquatic communities inhabiting waters of a given designated aquatic life use...(that)...describe the characteristics of water body segments least impaired by human activities.”

Biological Integrity - Defined in Karr J.R. and D.R. Dudley. 1981. Ecological perspective on water quality goals. Environmental Management 5:55-68 as: “A balanced, integrated, adaptive community of organisms having a species composition, diversity, and functional organization comparable to that of natural habitat of the region.” Also referred to as ecosystem health.

Biomagnification – The transfer and progressive increase in tissue concentrations of a contaminant along the food chain. Because some pollutants can be transferred to higher trophic levels, carnivores at the top of the food chain, such as predatory fish, birds, and mammals (including humans), obtain most of their pollution burden from aquatic ecosystems by ingestion. Thus, although such pollutants may only be present in receiving waters in low concentrations, they can have a significant impact to the integrity of the ecosystem through biomagnification.

Clean Water Act Section 402(p) - [33 USC 1342(p)] is the federal statute requiring municipal and industrial dischargers to obtain NPDES permits for their discharges of storm water.

Clean Water Act Section 303(d) Water Body - is an impaired water body in which water quality does not meet applicable water quality standards and/or is not expected to meet water quality standards, even after the application of technology based pollution controls required by the CWA. The discharge of urban runoff to these water bodies by the Copermittees is significant because these discharges can cause or contribute to violations of applicable water quality standards.

Contamination - As defined in the Porter-Cologne Water Quality Control Act, contamination is “an impairment of the quality of waters of the state by waste to a degree which creates a hazard to the public health through poisoning or through the spread of disease. ‘Contamination’ includes any equivalent effect resulting from the disposal of waste whether or not waters of the state are affected.”

Designated Waste - Designated waste is defined as a “nonhazardous waste which consists of pollutants which, under ambient environmental conditions at the waste management unit, could be released at concentrations in excess of applicable water quality objectives, or which could cause degradation of waters of the state.” [CCR Title 27, Chapter 3, Subchapter 2, Article 2, Section 20210; WC Section 13173]

Effluent Limitations - Limitations on the volume of each waste discharge, and the quantity and concentrations of pollutants in the discharge. The limitations are designed to ensure that the

discharge does not cause water quality objectives to be exceeded in the receiving water and does not adversely affect beneficial uses.

Effluent limitations are limitations of the quantity and concentrations of pollutants in a discharge. The limitations are designed to ensure that the discharge does not cause water quality objectives to be exceeded in the receiving water and does not adversely affect beneficial uses. In other words, an effluent limit is the maximum concentration of a pollutant that a discharge can contain. To meet effluent limitations, the effluent typically must undergo one or more forms of treatment to remove pollutants in order to lower the pollutant concentration below the limit. Effluent limits are typically numeric (e.g., 10 mg/l), but can also be narrative (e.g., no toxics in toxic amounts).

Erosion – When land is diminished or worn away due to wind, water, or glacial ice. Often the eroded debris (silt or sediment) becomes a pollutant via storm water runoff. Erosion occurs naturally but can be intensified by land clearing activities such as farming, development, road building, and timber harvesting.

Grading - The cutting and/or filling of the land surface to a desired slope or elevation.

Hazardous Waste - Hazardous waste is defined as “any waste which, under Section 600 of Title 22 of this code, is required to be managed according to Chapter 30 of Division 4.5 of Title 22 of this code.” [CCR Title 22, Division 4.5, Chapter 11, Article 1]

Illicit Discharge - Any discharge to a municipal separate storm sewer that is not composed entirely of storm water except discharges pursuant to a NPDES permit (other than the NPDES permit for discharges from the municipal separate storm sewer) and discharges resulting from fire fighting activities.

Inert Waste - Inert waste is defined as one that “does not contain hazardous waste or soluble pollutants at concentrations in excess of applicable water quality objectives, and does not contain significant quantities of decomposable waste.” [CCR Title 27, Chapter 3, Subchapter 2, Article 2, Section 20230]

MEP – MEP is the acronym for Maximum Extent Practicable. MEP is the technology-based standard established by Congress in CWA section 402(p)(3)(B)(iii) that municipal dischargers of storm water (MS4s) must meet. Technology-based standards establish the level of pollutant reductions that dischargers must achieve, typically by treatment or by a combination of treatment and best management practices (BMPs). MEP generally emphasizes pollution prevention and source control BMPs primarily (as the first line of defense) in combination with treatment methods serving as a backup (additional line of defense). MEP considers economics and is generally, but not necessarily, less stringent than BAT. A definition for MEP is not provided either in the statute or in the regulations. Instead the definition of MEP is dynamic and will be defined by the following process over time: municipalities propose their definition of MEP by way of their Urban Runoff Management Plan. Their total collective and individual activities conducted pursuant to the Urban Runoff Management Plan becomes their proposal for MEP as it applies both to their overall effort, as well as to specific activities (e.g., MEP for street sweeping, or MEP for municipal separate storm sewer system maintenance). In the absence of a proposal acceptable to the SDRWQCB, the SDRWQCB defines MEP.

In a memo dated February 11, 1993, entitled "Definition of Maximum Extent Practicable," Elizabeth Jennings, Senior Staff Counsel, SWRCB addressed the achievement of the MEP standard as follows:

“To achieve the MEP standard, municipalities must employ whatever Best Management Practices (BMPs) are technically feasible (i.e., are likely to be effective) and are not cost

prohibitive. The major emphasis is on technical feasibility. Reducing pollutants to the MEP means choosing effective BMPs, and rejecting applicable BMPs only where other effective BMPs will serve the same purpose, or the BMPs would not be technically feasible, or the cost would be prohibitive. In selecting BMPs to achieve the MEP standard, the following factors may be useful to consider:

- a. *Effectiveness: Will the BMPs address a pollutant (or pollutant source) of concern?*
- b. *Regulatory Compliance: Is the BMP in compliance with storm water regulations as well as other environmental regulations?*
- c. *Public Acceptance: Does the BMP have public support?*
- d. *Cost: Will the cost of implementing the BMP have a reasonable relationship to the pollution control benefits to be achieved?*
- e. *Technical Feasibility: Is the BMP technically feasible considering soils, geography, water resources, etc?*

The final determination regarding whether a municipality has reduced pollutants to the maximum extent practicable can only be made by the Regional or State Water Boards, and not by the municipal discharger. If a municipality reviews a lengthy menu of BMPs and chooses to select only a few of the least expensive, it is likely that MEP has not been met. On the other hand, if a municipal discharger employs all applicable BMPs except those where it can show that they are not technically feasible in the locality, or whose cost would exceed any benefit derived, it would have met the standard. Where a choice may be made between two BMPs that should provide generally comparable effectiveness, the discharger may choose the least expensive alternative and exclude the more expensive BMP. However, it would not be acceptable either to reject all BMPs that would address a pollutant source, or to pick a BMP base solely on cost, which would be clearly less effective. In selecting BMPs the municipality must make a serious attempt to comply and practical solutions may not be lightly rejected. In any case, the burden would be on the municipal discharger to show compliance with its permit. After selecting a menu of BMPs, it is the responsibility of the discharger to ensure that all BMPs are implemented.”

Municipal Storm Water Conveyance System – (See Municipal Separate Storm Sewer System or MS4).

Municipal Separate Storm Sewer System (MS4) – MS4 is an acronym for Municipal Separate Storm Sewer System. A Municipal Separate Storm Sewer System is a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, natural drainage features or channels, modified natural channels, man-made channels, or storm drains): (i) Owned or operated by a State, city town, borough, county, parish, district, association, or other public body (created by or pursuant to State law) having jurisdiction over disposal of sewage, industrial wastes, storm water, or other wastes, including special districts under State law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, or designated and approved management agency under section 208 of the CWA that discharges to waters of the United States; (ii) Designated or used for collecting or conveying storm water; (iii) Which is not a combined sewer; (iv) Which is not part of the Publicly Owned Treatment Works (POTW) as defined at 40 CFR 122.2.

Historic and current development make use of natural drainage patterns and features as conveyances for urban runoff. Urban streams used in this manner are part of the municipalities MS4 regardless of whether they are natural, man-made, or partially modified features. In these cases, the urban stream is both an MS4 and a receiving water.

National Pollution Discharge Elimination System (NPDES) - These permits pertain to the discharge of waste to surface waters only. All State and Federal NPDES permits are also WDRs.

Non-hazardous Solid Waste - Non-hazardous solid waste means all putrescible and nonputrescible solid, semi-solid, and liquid wastes, including garbage, trash, refuse, paper, rubbish, ashes, industrial wastes, demolition and construction wastes, abandoned vehicles and parts thereof, discarded home and industrial appliances, manure, vegetable or animal solid and semi-solid wastes and other discarded solid or semi-solid waste; provided that such wastes do not contain wastes which must be managed as hazardous wastes, or wastes which contain soluble pollutants in concentration which exceed applicable water quality objectives or could cause degradation of waters of the state." [CCR Title 27, Chapter 3, Subchapter 2, Article 2, Section 20220]

Non Point Source (NPS) – Non point source refers to diffuse, widespread sources of pollution. These sources may be large or small, but are generally numerous throughout a watershed. Non Point Sources include but are not limited to urban, agricultural, or industrial areas, roads, highways, construction sites, communities served by septic systems, recreational boating activities, timber harvesting, mining, livestock grazing, as well as physical changes to stream channels, and habitat degradation. NPS pollution can occur year round any time rainfall, snowmelt, irrigation, or any other source of water runs over land or through the ground, picks up pollutants from these numerous, diffuse sources and deposits them into rivers, lakes, and coastal waters or introduces them into ground water.

Non-Storm Water - Non-storm water consists of all discharges to and from a storm water conveyance system that do not originate from precipitation events (i.e., all discharges from a conveyance system other than storm water). Non-storm water includes illicit discharges, non-prohibited discharges, and NPDES permitted discharges. An illicit discharge is defined at 40 CFR 122.26(b)(2) as any discharge to a municipal storm water conveyance system that is not composed entirely of storm water except discharges pursuant to a separate NPDES permit and discharges resulting from emergency fire fighting activities.

Nuisance - As defined in the Porter-Cologne Water Quality Control Act a nuisance is "anything which meets all of the following requirements: 1) Is injurious to health, or is indecent, or offensive to the senses, or an obstruction to the free use of property, so as to interfere with the comfortable enjoyment of life or property. 2) Affects at the same time an entire community or neighborhood, or any considerable number of persons, although the extent of the annoyance or damage inflicted upon individuals may be unequal. 3) Occurs during, or as a result of, the treatment or disposal of wastes."

Numeric effluent limitations - The typical method by which effluent limits are prescribed for pollutants in waste discharge requirements implementing the federal NPDES regulations. When numeric effluent limits are met at the "end-of-pipe", the effluent discharge generally will not cause water quality standards to be exceeded in the receiving waters (i.e., water quality standards will also be met).

Person - A person is defined as an individual, association, partnership, corporation, municipality, State or Federal agency, or an agent or employee thereof. [40 CFR 122.2].

Point Source - Any discernible, confined, and discrete conveyance, including, but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock, concentrated animal feeding operations, landfill leachate collection systems, vessel, or other floating craft from which pollutants are or may be discharged.

Pollution - As defined in the Porter-Cologne Water Quality Control Act, pollution is “the alteration of the quality of the waters of the State by waste, to a degree that unreasonably affects the either of the following: A) The waters for beneficial uses; or 2) Facilities that serve these beneficial uses.” Pollution may include contamination.

Pollutant - A pollutant is broadly defined as any agent that may cause or contribute to the degradation of water quality such that a condition of pollution or contamination is created or aggravated.

Pollution Prevention - Pollution prevention is defined as practices and processes that reduce or eliminate the generation of pollutants, in contrast to source control, treatment, or disposal.

Post-Construction BMPs - A subset of BMPs including structural and non-structural controls which detain, retain, filter, or educate to prevent the release of pollutants to surface waters during the final functional life of development.

Pre-Development Runoff Conditions - The runoff conditions that exist onsite immediately before the planned development activities occur. This definition is not intended to be interpreted as that period before any human-induced land activities occurred. This definition pertains to redevelopment as well as initial development.

Receiving Water Limitations - Waste discharge requirements issued by the SDRWQCB typically include both: (1) “Effluent Limitations” (or “Discharge Limitations”) that specify the technology-based or water-quality-based effluent limitations; and (2) “Receiving Water Limitations” that specify the water quality objectives in the Basin Plan as well as any other limitations necessary to attain those objectives. In summary, the “Receiving Water Limitations” provision is the provision used to implement the requirement of CWA section 301(b)(1)(C) that NPDES permits must include any more stringent limitations necessary to meet water quality standards.

Sediment - Soil, sand, and minerals washed from land into water. Sediment resulting from anthropogenic sources (i.e. human induced land disturbance activities) is considered a pollutant. This Order regulates only the discharges of sediment from anthropogenic sources and does not regulate naturally occurring sources of sediment. Sediment can destroy fish-nesting areas, clog animal habitats, and cloud waters so that sunlight does not reach aquatic plants.

Storm Water - “Storm water” is as defined urban runoff and snowmelt runoff consisting only of those discharges which originate from precipitation events. Storm water is that portion of precipitation that flows across a surface to the storm drain system or receiving waters. Examples of this phenomenon include: the water that flows off a building’s roof when it rains (runoff from an impervious surface); the water that flows into streams when snow on the ground begins to melt (runoff from a semi-pervious surface); and the water that flows from a vegetated surface when rainfall is in excess of the rate at which it can infiltrate into the underlying soil (runoff from a pervious surface). When all factors are equal, runoff increases as the perviousness of a surface decreases. During precipitation events in urban areas, rain water picks up and transports pollutants through storm water conveyance systems, and ultimately to waters of the United States.

Toxicity - Adverse responses of organisms to chemicals or physical agents ranging from mortality to physiological responses such as impaired reproduction or growth anomalies). The water quality objectives for toxicity provided in the Water Quality Control Plan, San Diego Basin, Region 9, (Basin Plan), state in part... *“All waters shall be free of toxic substances in concentrations that are toxic to, or that produce detrimental physiological responses in human, plant, animal, or aquatic life....The survival of aquatic life in surface waters subjected to a waste*

discharge or other controllable water quality factors, shall not be less than that for the same water body in areas unaffected by the waste discharge”.... Urban runoff discharges from MS4s are considered toxic when (1) the toxic effect observed in an acute toxicity test exceeds zero Toxic Units Acute (Tua=0); or (2) the toxic effect observed in a chronic toxicity test exceeds one Toxic Unit Chronic (Tuc=1). Urban runoff discharges from MS4s often contain pollutants that cause toxicity.

Total Maximum Daily Load (TMDL) - The TMDL is the maximum amount of a pollutant that can be discharged into a water body from all sources (point and non-point) and still maintain water quality standards. Under Clean Water Act section 303(d), TMDLs must be developed for all water bodies that do not meet water quality standards after application of technology-based controls.

Urban Runoff - Urban runoff is defined as all flows in a storm water conveyance system and consists of the following components: (1) storm water (wet weather flows) and (2) non-storm water illicit discharges (dry weather flows).

Waste - As defined in California Water Code Section 13050(d), “waste includes sewage and any and all other waste substances, liquid, solid, gaseous, or radioactive, associated with human habitation, or of human or animal origin, or from any producing, manufacturing, or processing operation, including waste placed within containers of whatever nature prior to, and for purposes of, disposal.”

Article 2 of CCR Title 23, Chapter 15 (Chapter 15) contains a waste classification system which applies to solid and semi-solid waste which cannot be discharged directly or indirectly to water of the state and which therefore must be discharged to land for treatment, storage, or disposal in accordance with Chapter 15. There are four classifications of waste (listed in order of highest to lowest threat to water quality): hazardous waste, designated waste, nonhazardous solid waste, and inert waste.

Water Quality Objective - Numerical or narrative limits on constituents or characteristics of water designated to protect designated beneficial uses of the water. [California Water Code Section 13050 (h)]. California’s water quality objectives are established by the State and Regional Water Boards in the Water Quality Control Plans.

As stated in the Porter-Cologne Requirements for discharge (CWC 13263): "(Waste discharge) requirements shall implement any relevant water quality control plans that have been adopted, and shall take into consideration the beneficial uses to be protected, the water objectives reasonably required for that purpose, other waste discharges, the need to prevent nuisance, and the provisions of Section 13241."

A more comprehensive list of legal authority containing water quality objectives applicable to this Order can be found in Finding 37 and in Section VII Directives Discussion Underlying Broad Legal Authority for Order R9-2002-0001 pp. 76-78.

Numeric or narrative limits for pollutants or characteristics of water designed to protect the beneficial uses of the water. In other words, a water quality objective is the maximum concentration of a pollutant that can exist in a receiving water and still generally ensure that the beneficial uses of the receiving water remain protected (i.e., not impaired). Since water quality objectives are designed specifically to protect the beneficial uses, when the objectives are violated the beneficial uses are, by definition, no longer protected and become impaired. This is a fundamental concept under the Porter Cologne Act. Equally fundamental is Porter Cologne’s definition of pollution. A condition of pollution exists when the water quality needed to support designated beneficial uses has become unreasonably affected or impaired; in other words, when

the water quality objectives have been violated. These underlying definitions (regarding beneficial use protection) are the reason why all waste discharge requirements implementing the federal NPDES regulations require compliance with water quality objectives. (Water quality objectives are also called water quality criteria in the Clean Water Act.)

Water Quality Standards - are defined as the beneficial uses (e.g., swimming, fishing, municipal drinking water supply, etc.) of water and the water quality objectives necessary to protect those uses.

Waters of the State - Any water, surface or underground, including saline waters within the boundaries of the State [California Water Code Section 13050 (e)]. The definition of the Waters of the State is broader than that for the Waters of the United States in that all water in the State is considered to be a Waters of the State regardless of circumstances or condition. Under this definition, a Municipal Separate Storm Sewer System (MS4) is always considered to be a Waters of the State.

Waters of the United States - Waters of the United States can be broadly defined as navigable surface waters and all tributary surface waters to navigable surface waters. Groundwater is not considered to be a Waters of the United States.

As defined in the 40 CFR 122.2, the Waters of the U.S. are defined as: **“(a) All waters, which are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;** (b) All interstate waters, including interstate “wetlands;” (c) All other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, “wetlands,” sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds the use, degradation or destruction of which would affect or could affect interstate or foreign commerce including any such waters: (1) Which are or could be used by interstate or foreign travelers for recreational or other purposes; (2) From which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or (3) Which are used or could be used for industrial purposes by industries in interstate commerce; (d) All impoundments of waters otherwise defined as waters of the United States under this definition: **(e) Tributaries of waters identified in paragraphs (a) through (d) of this definition;** (f) The territorial seas; and (g) “Wetlands” adjacent to waters (other than waters that are themselves wetlands) identified in paragraphs (a) through (f) of this definition. Waters of the United States do not include prior converted cropland. Notwithstanding the determination of an area’s status as prior converted cropland by any other federal agency, for the purposes of the Clean Water Act, the final authority regarding Clean Water Act jurisdiction remains with the EPA.”

Watershed - That geographical area which drains to a specified point on a water course, usually a confluence of streams or rivers (also known as drainage area, catchment, or river basin).

ATTACHMENT E

DRY WEATHER MONITORING PROGRAM SPECIFICATIONS - URBAN RUNOFF

E.1 Dry Weather Monitoring Program

Each Copermittees shall review and revise as necessary its Dry Weather Monitoring Program to comply with section F.5 of this Order. The Dry Weather Monitoring Program for each Copermittee shall meet or exceed the specifications of this Attachment. The objectives of the Dry Weather Monitoring Program are:

- Assessing compliance with Order No. R9-2002-0001;
- Detect and eliminate illicit discharges and illegal connections to the MS4; and
- Characterize urban runoff within the MS4 system with respect to water quality constituents that may cause or contribute to exceedances of receiving water quality objectives when discharged to receiving waters.

E.2 Dry Weather Monitoring Program Document

Based upon a review of its Detection/Elimination of Illegal Discharges and Illicit Connections Program, each Copermittee shall revise or develop a Dry Weather Monitoring Program Document that meets or exceeds the specifications listed in section E.4 of this Attachment. The Dry Weather Monitoring Program shall be designed and implemented to address the objectives listed in section E.1 of this Attachment. Each Copermittee shall submit its Dry Weather Monitoring Program to the Principal Permittee as part of its Jurisdictional Urban Runoff Management Program Document on the date prescribed by the Principal Permittee. The Principal Permittee shall collectively submit the dry weather monitoring maps and procedures to the SDRWQCB within **365** days of adoption of this Order.

E.3 Implementation of the Dry Weather Monitoring Program

Each Copermittee shall implement its Dry Weather Monitoring Program by May 1, 2003. Following the adoption of this Order and prior to implementation of the Dry Weather Monitoring Program under the Jurisdictional URMP, each Copermittee shall continue to implement the Illicit Discharge and Illegal Connection programs and commitments described in the Orange County Water Quality Monitoring Program (99-04 Plan) and the proposed Drainage Area Management Plan (DAMP).

E.4 Dry Weather Monitoring Program Specifications

Each Copermittee shall develop or revise its Dry Weather Monitoring Program to meet or exceed the following requirements:

- a. Develop MS4 Map: Each Copermittee shall develop or obtain an up-to-date labeled map of its entire municipal separate storm sewer system (MS4) and the corresponding drainage watersheds within its jurisdiction. The use of a Geographic Information System (GIS) is highly recommended, but not required. The accuracy of the MS4 map shall be confirmed and updated at least annually during monitoring activities.

- b. Monitoring Stations: Based upon a review of its past Dry Weather Monitoring Programs, each Copermittee shall select dry weather monitoring stations within its jurisdiction to be monitored in the Dry Weather Monitoring Program.
- (1) Each Copermittee shall develop or revise its program to describe the rationale used to determine the number and locations of stations necessary to comply with the Order.
 - (2) Each Copermittee shall confirm that each major drainage area within its jurisdiction contains at least one station.
 - (3) Stations shall be either major outfalls or other outfall points (or any other point of access such as manholes) located throughout the MS4 to provide adequate coverage of the entire MS4 system.
 - (4) Each Copermittee shall clearly identify each dry weather monitoring station on its MS4 Map as either a separate GIS layer or a map overlay hereafter referred to as a Dry Weather Monitoring Stations Map.
- c. Determining Sampling Frequency: Dry weather analytical and field screening monitoring shall be conducted at each identified station at least twice between May 1st and September 30th of each year or as more frequently as the Copermittee determines is necessary to comply with the requirements of Section F.5 of the Order.
- (1) Each Copermittee shall develop or revise written procedures that describe the criteria and process used to determine the number and frequency of inspections, field screening and analytical monitoring to be performed.
 - (2) Any changes in Dry Weather Monitoring inspection or sampling frequency shall be described and reported in detail annually in the Dry Weather Monitoring Report section of the Jurisdictional URMP Annual Report.
- d. Develop Dry Weather Analytical Monitoring Procedures: Each Copermittee shall develop or revise written procedures for dry weather analytical and field screening monitoring (consistent with 40 CFR part 136), that shall include field observations, field screening monitoring, and analytical monitoring.
- (1) The Dry Weather Monitoring Program shall be designed to emphasize frequent, geographically widespread inspections, monitoring, and follow up investigations to detect illicit discharges and illegal connections. At a minimum, the procedures must be based on or incorporate the following guidelines and criteria:
 - (a) At each site inspected or sampled, record general information such as time since last rain, quantity of last rain, site descriptions (i.e., conveyance type, dominant watershed land uses), flow estimation (i.e., width of water surface, approximate depth of water, approximate flow velocity, flow rate), and visual observations (e.g., odor, color, clarity, floatables, deposits/stains, vegetation condition, structural condition, and biology).
 - (b) If flow or ponded runoff is observed at a station and there has been at least seventy-two (72) hours of dry weather, shall make observations and collect at least one (1) set of grab samples for field screening and/or analytical testing that meets or exceeds the requirements of section E.4.d.1.d (Field Screening Parameters) or E.4.d.1.e (Analytical Monitoring Parameters).
 - (c) Perform field screening analysis on all sites with ponded or flowing water and at a minimum collect samples at no less than 25% of these sites for analytical testing.
 - (d) Field Screening Monitoring Parameters: At a minimum, conduct field screening analysis of the following constituents:
 - (1) Specific conductance (calculate estimated Total Dissolved Solids).
 - (2) Turbidity
 - (3) pH

- (4) Reactive Phosphorous
- (5) Nitrate Nitrogen
- (6) Ammonia Nitrogen
- (7) Phenol
- (8) Surfactants (MBAS)

- (e) Analytical Monitoring Parameters: At a minimum, collect samples for analytical laboratory analysis of the following constituents:
 - (1) Total Hardness
 - (2) Oil and Grease
 - (3) Diazinon and Chlorpyrifos
 - (4) Cadmium (Dissolved)
 - (5) Copper (Dissolved)
 - (6) Lead (Dissolved)
 - (7) Zinc (Dissolved)
 - (8) Enterococcus Bacteria
 - (9) Total Coliform Bacteria
 - (10) Fecal Coliform Bacteria
 - (f) If the station is dry (no flowing or ponded runoff), make and record all applicable observations and select another station from the list of alternate stations for monitoring.
- (2) The Dry Weather Monitoring Program shall include criteria for dry weather inspection, analytical and field screening monitoring results whereby exceedance of the criteria will require follow-up investigations to be conducted to identify the source causing the exceedance of the criteria.
 - (3) Dry weather analytical and field screening monitoring stations identified to exceed dry weather monitoring criteria for any constituents shall continue to be screened in subsequent years.
 - (4) The Dry Weather Monitoring Program shall include procedures for source identification follow up investigations in the event of exceedance of dry weather analytical and field screening monitoring result criteria. These procedures shall be consistent with procedures required in section F.5.c. of this Order.
 - (5) The Dry Weather Monitoring Program shall include procedures to eliminate detected illicit discharges and connections. These procedures shall be consistent with each Copermittee's Illicit Discharge and Elimination component of its Jurisdictional Urban Runoff Management Plan as discussed in section F.5 of this Order.
 - (6) During monitoring, the accuracy of its MS4 map and shall be confirmed. Correct any inaccuracies in either the MS4 map or the Dry Weather Monitoring Stations Map and resubmit the corrected maps in the next annual report.

E.5 Summarize and Report Dry Weather Monitoring Results

As part of its individual Jurisdictional URMP Annual Report, each Copermittee shall summarize and report on its Dry Weather Monitoring Program results. The data shall be presented in tabular and graphical form. The reporting shall include all inspection, field screening, and analytical monitoring results. Each Copermittee shall also report all follow up and elimination activities for potential illicit discharges and connections undertaken by the Copermittee during that year. Dry weather analytical monitoring reports shall comply with all monitoring and standard reporting requirements in Attachments B and C of Order R9-2002-0001. The Principal Permittee shall submit to the SDRWQCB the individual Dry Weather Monitoring reports as part of the unified Jurisdictional URMP Annual Report prior to November 9, 2003, and every year thereafter.